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COURSE OF LECTURES
ON THE
ANATOMY, PHYSIOLOGY, AND DISEASES
OF
THE EAR.

By GEO. PILCHER, *Esq., Lecturer on Surgery.*

DELIVERED AT THE
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Arranged and Reported from Notes
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LECTURE III.

In former lectures we have made cursory allusion to the perfection of the senses in the various gradations of animals; and it has been observed, that however low or obscure the station which any species may occupy in the animal scale, the principle of mechanism displayed in the organisation of the apparatus of the senses, has uniform reference to the *medium* in which the animal lives,—presenting specific modifications to meet the exigencies of instinct, mode of living, and other peculiarities. When the ceaseless variety of forms presented in the external ears of different animals, and the diversified purposes for which the sense of hearing is rendered available, are superficially considered, it may appear matter of difficulty to reduce the study into a defined and systematic plan—viewing the physiological department of the inquiry, we should recognise that classification, according to which animals are grouped into those which hear through the medium of air, and those which hear through that of water. In relation, however, to the anatomical structure of this organ, in the separate groups of the series in which we propose, progressively, to examine it, we shall soon appreciate the importance of that principle of investigation adopted by all modern physiologists, which seeks the true signification of any given organ or structure in the conditions which it presents in its most elementary state, or that of greatest simplicity. By the adoption of this method, we shall discover that the fish—in reference to the conformation of its ear—constitutes a natural link in the series of advancing development, which commences in the crustacea among the articulated animals, and in the cephalopoda among the mollusca, and ends in the complicated perfection which the organ of hearing attains in the mammalia.

This formed the system of study pursued by De Blainville in the prosecution of his extensive researches into the comparative anatomy of this organ; and this is the course recognised by all subsequent writers upon this department of medicine. In following out this system of investigation,—which it is my design to do on this as on former occasions,—the subject will be found to resolve itself into the four leading divisions of, 1, the *vestibule*; 2, *semicircular canals* and *cochlea*; 3, the *tympanum*, and the neighbouring cells communicating with its cavity; and, 4, the appendages constituting the external ear. These subdivisions, while they obviously facilitate the study of *otology* as a science, afford the most physiological channel through which to estimate the component elements of the organ in their separate forms, and determine their absolute and relative importance and analogies in the chain of animals in which an ear can be demonstrated to exist. The order of enumeration in which I have here given the different compartments, nearly corresponds with the stages of development through which the human ear consecutively passes in the process of growth. It is necessary, however, to remark, that in the higher mammalia this law of succession is not literally obeyed in the appearance and growth of the accessory parts. The auditory vesicle, which by its evolution is to expand into the future labyrinth, has a separate origin from the rest of the organ; the latter appearing, subsequently, distinct from each other, and observing in their development no regular order: the systematic consideration of development will come at a future lecture.

In reference to the lower animals, the regularity of the gradations exhibited by each successive group as we recede from man; or conversely, the progressive superaddition of

new parts, and therefore the gradual complication of structure, discovered in our advance from the lowest to the highest extreme of the series, furnishes the data upon which this principle of division is founded.

Commencing our examination with the crustacea, the organ of hearing presents itself under the most rudimentary and uncomplicated form of any in which it has yet been shown to exist. In this class of animals it is found to consist only of a small sac, supplied with nervous filaments, and containing a limpid fluid. Since nothing which resembles an ear has hitherto been conclusively demonstrated in animals lower in the scale than the crustacea, the inference is plain that this saccular apparatus is the most elementary and simplest condition under which the organ of hearing occurs in the animal kingdom; and since, likewise, this form of the organ, by the disposition of the nerve of *specific endowment* with which it is provided, is well calculated to receive sonorous vibrations, it is evident that this little sac is the *essential part*—a part, that is, without which the sense of hearing cannot be enjoyed. In pursuing the comparative method of study which we have proposed to follow out, we shall find that the three remaining divisions, including the semicircular canals, cochlea, fenestra ovalis, tympanic cavity, ossicula, the tympanic membrane, auditory meatus, and pinna, are successively produced, until ultimately the higher orders of mammalia present us with a compound organ made up by a combination of all the other parts. In the human organ, as we have observed, the superadded parts do not implicitly conform to this law of succession. This process of examination enables us to understand what is the *fundamental type* of the organ, and to separate from it those divisions which are *accessory* only. It likewise greatly facilitates the determination of their respective acoustic value, and will further afford the means of ascertaining the parts which are *independent* of others, and those which *necessarily* coexist.

Vestibule.—The membranous sac which constitutes the auditory organ in the crustacea and cephalopods, is found to persist throughout all the variations of form which the ear undergoes in the different orders of animals. And from the position which it occupies,—intervening between the semicircular canals and cochlea in the higher vertebrata, and in fishes, forming the common chamber which receives the terminations of the canals,—the name of *vestibule* is correctly enough applied. When it constitutes exclusively the organ of hearing, in the crustaceous animals, it is contained within an excavation placed at the base of the outer great antennæ, which may be called the osseous vestibulum, and in the mollusca, within a cavity in the cartilage of the head (of corresponding dimensions to itself), and which are attached to the walls of the cavity by structures varying in character with the classes in which they are found, which may therefore be termed the cartilaginous vestibule. These cavities inclose the membranous sac, over which is accurately adjusted an expansion of the acoustic nerve.

In all the higher orders of vertebrata, the structural connexion is established by means of a fibrous periosteum, in the cartilaginous fishes by perichondrium, and in others the external investment of the sac is composed of a little fascial tissue. Lining the interior of the proper vestibule, there is seen a third layer, consisting of attenuated cellular tissue, which provides a stratum for the expanded termination of the neurine in the tubular fibrillæ of the auditory nerve, and performs a part in relation to the *acoustic nerve* analogous to that fulfilled by Jacob's tunic* in reference to the *retina*. This disposition of the nervous layer, however, is not constant; for it not infrequently stretches across the cavity as a transverse septum, and sometimes collects into folds, which float on the fluid of the vestibule. In the rudimentary and saccular condition of the ear, the nerve expands into a circular lamina, corresponding in figure, although not in extent, with the vascular bag by which it is encircled. In the interior it is not difficult to demonstrate the presence of a small quantity of limpid,

* [The analogy between these parts in the structure of the two senses may be extended, without amounting to the refinement with which some have laboured to establish a parallelism between the eye and ear. The tunics which form the sac of the *vestibule*, according to minute dissections, are divisible into four layers: 1st, that which is outermost and fibrous; 2nd, a *vascular* layer; and, 3rd, a *delicate* tissue, upon which, 4th, the nerve is disposed. If any correlation exist, 1st, the sclerotic in the eye may be regarded the counterpart of the fibrous coat; 2nd, the choroid with its vessels, that of the vascular layer in the ear, and the *delicate tissue* upon which the auditory nerve is expanded, would correspond with the tunica Jacobi in the eye. And if the *supposition*, which is supported by probability, be true, that the third layer in the vestibular ear consists of a membrane folded upon itself, the *halitus* necessarily contained would be the precise analogue of *that* lubricating the interior of Jacob's tunic. From this the extension of the parallel would be obvious, that the halitus in the former represents the perilymph of the higher animals; and this latter, the limpid fluid in the sac of the *membrane of Jacob*, rather than the aqueous humour. Mr. Wharton Jones has compared the *space* filled by the perilymph to that between the choroid and sclerotic: a comparison which is not intelligible, as it selects parts which are neither analogous in structure nor situation.—T. Williams.]

aqueous fluid, holding in solution minute portions of alkaline and albuminous ingredients. It is supposed by some that this humour is enveloped by a separate tunic, in consequence of the regularity and constancy of the figure which it exhibits, and the disproportion between its volume and the capacity of the containing sac. By careful examination, filaments of the auditory nerve may be observed piercing the more external, to spread themselves upon the innermost tunic; thus giving to the whole sac the appearance of suspension by their agency. When the whole figure of the vestibule is examined, a gradual constriction is remarked towards that part, where it is about to adjust itself to the orifice of the fenestra.

It now becomes necessary to proceed to a more detailed and systematic description of this simplest form of ear.

In the *crustacea*, as represented in these dissections and diagrams, this organ is situate at the inferior surface of the head on either side, and in the interior of the first division or segment of the large antenna. Viewing the roots of these antennary processes from without, they present small papillary elevations, which indicate the situation of the vestibular sac in the interior. In the *astacus fluviatilis*, or cray-fish, and in the common lobster, an aperture of considerable size is observed upon the summit of this projection, which communicates, through the medium of a membrane, with the cavity of the sac. From the situation of this aperture, and its immediate relation to the external surface, it may be regarded as the analogue, or representative of the *fænestra ovalis*. In its anatomical structure, perhaps from the absence of the stapes, which is subsequently to be appended to it, it may be thought to resemble the secondary tympanic membrane of the fenestra rotunda; in its physiological properties, however, as you will afterwards understand, this aperture must be analogous to that part called the *fænestra ovalis*, since it forms the medium of communication between the vestibular sac and the surrounding vibrating fluid. The internal surface presents an orifice in the shell, of the same segment of the antenna, through which vessels and nerves pass for distribution upon the sacculus; after the removal of the cretaceous case, in which the membranous vestibule is contained, it is found as a little bag, of varying size and figure, filled with a watery fluid, but, for the most part, oval in form, and comparatively larger in dimensions when it constitutes the entire organ, than when only an aliquot compartment of a more complicated apparatus; it is observed to be vascular in structure, and in close attachment to the parietes of the cavity which it occupies. The tissue of connection between the osseous and membranous vestibules varies in its character in different classes of animals.

Dr. Roget accompanies his description of the ear in the lobster with a diagram, designed to show a striated groove upon the sac receiving the terminal fibrils of the auditory nerve. The striated groove of which Dr. Roget speaks, most probably consists only of a duplication of the nervous coat described above. That this is the source of deception is the more likely, from the difficulty of discovering the supposed groove, and the frequency with which the nervous layer assumes that septum-like disposition alluded to.

The humour which occupies the interior of this simple ear, contains a small calcareous body, partially suspended by nervous filaments, which are prolonged into the cavity, and sometimes strewn at the bottom of the fluid in a pulverulent form. This little substance is known by the term *otolithe*, or otoconia. These concretions are found, in appreciable quantity or size, in all animals in which the ear exists; although their existence is matter of difficult demonstration in the highest mammifera and man. Their presence, however, can no longer be questioned, since a positive and perspicuous account of them is given, on the authority of Scarpa, Comparetti, De Blainville, and others. It is to Breschet, however, that we are indebted for a thorough investigation of them in the animal series. In reference to their chemical composition, they are not, as the synonyme *cretaceous* would imply, composed of carbonic acid and lime; but, according to the analysis of Huschke and Barruel, they are made up of a combination of mucus, carbonate and phosphate of lime, and a small admixture of animal material. Their physical characters will be described more in detail in the various orders of animals, as their organ of hearing is brought on for examination.

In the *cephalopodous mollusca*, as cuttle-fish, Nautilus, what was in the former class pointed out as an osseous cavity, in the order of animals now under examination, constitutes the cartilaginous vestibule. It appears in the character of a small excavation in the cartilage of the head, destitute of fænestra, or any aperture for external communication correspondent in office to the oval orifice, presented us in the vestibular sacculus of the crustacea. According to the dissections of Weber, the internal surface of the cartilaginous vestibulum in the octapus is smooth, while the opposite state is observed in the sepia and loligo of projecting tubercles, by which the interior vesicle is supported.

In the cuttle-fish the cartilaginous cavity, which here assumes a quadrilateral figure, presents, at either angle, small projections, to which the membranous sac is attached; this arrangement evidently confers considerably greater mobility and power of vibration upon the soft organ, than if its sides were continuously attached to the whole surface of the containing cavity. Within these sim-

ple sacs there are always found otolitic concretions, which undergo variations of size and figure in different classes; in some they present a regular cruciform shape; this form, however, is more frequently observed in crustaceous animals. In the mollusca, a class which we are now examining, these chalky masses seldom acquire hardness to assume a definite figure, as in the crustacea. It is not improbable that there may be some correspondence between the habits of animals and the disposition of these loose bodies; that amphibious mode of living, which some of them pursue—rendering necessary the possession of the twofold property of hearing in air and likewise in water—may, perhaps, require, for the purposes of security from danger, and for the obtaining food, that hearing should be available in both elements.

The myxinoid fishes constitute a transition series between the higher aquatic animals, in which the three semicircular canals are superadded, and the crustaceous and molluscous classes, in which the simple sac of the vestibule occurs, uncomplicated with any,—the smallest accessory appendage. In the myxine, petromyzon, and other fishes of this class, the semicircular canals are reduced in number to two, and even one, as in the bdellostoma. We now remark that our study conducts us, at this early stage, to groups, in which the organ, in its march of development, acquires increasing complexity. Before we go on to the consideration of the canals, which appear next in the order of development, it is desirable to offer a few remarks upon the reputed organs of hearing in the order insecta, and the inferior classes of the articulated animals.

It is an opinion generally entertained by entomologists, that insects, more particularly the arachnoidea, possesses the faculty of hearing; and it appears, from a variety of observations made upon them in their perfect and larva states, that they have some means of appreciating sonorous undulations; although comparative anatomists have not yet succeeded in assigning this function to any definitive apparatus. The dissections and accounts of Comparetti having received no confirmation from subsequent writers on entomology, are open to considerable doubt as to their correctness. The prevailing opinion is, that it resides in the antennæ; it is, however, a circumstance which somewhat militates against the probability of this hypothesis, that spiders, of which the sense of hearing is stated to be very acute, have no antennæ. In relation to the *apparent* function of hearing in those animals in which a separate organ has not been demonstrated, it must be remembered that it cannot be actual *hearing*, but rather an acute perception of those minuter atmospheric undulations, which are not perceptible to the *common* sensation of other animals.

I have long entertained the belief that the assumed indications of hearing, manifested in the numerous tribes of insects, gasteropods, and the still lower orders of mollusca, might be equally well explained, upon the idea that the common sensibility has acquired in these classes a state of high perfection, enabling them readily to perceive, by the tactile feeling, the mechanical vibrations of surrounding bodies.*

LECTURES

ON THE

ORGANS OF REPRODUCTION IN THE ANIMAL KINGDOM.

DELIVERED IN THE ROYAL COLLEGE OF SURGEONS, LONDON.

By Professor OWEN, F.R.S.

LECTURE XXII.—June 10, 1840.

In tracing the modifications which the *mucous layer* of the germinal membrane undergoes, it will first be observed that immediately after the appearance of the primitive cumuli the mucous layer dips down at each

* [There *are* some, from ignorance of the laws of the nervous system, who regard the power of insects to *perceive* sounds as positive *hearing*, although they allow the absence of an auditory organ. Mr. Pilcher's inculcations, therefore, cannot be too strongly set forth.

It is certain from the laws of relation between cerebral development and the organs of special sense, expounded in these lectures, that since the existence of the brain is essential to the exercise of vision, and likewise indispensable to that of hearing, by a *specific apparatus*, the conjoint presence of an elaborately-constructed eye and a brain, must render the inference inevitable, that the sense, for the appreciation of *sound* in insects, and all mollusca (except the cephalopods), has necessarily a separate and special organ. The contrary hypothesis, which regards these phenomena as dependent upon an exalted sensibility, violates principles which are fundamental in physiology, that no nerve can vicariously assume the properties and function of another. The blind, in reading by the fingers, do not *see* the letters, but only *feel* them.

The above theory, however, supposes the possibility of this transfer; but this notion, which further concedes to the whole extent of the body's surface the twofold power of common and of special sensation, is at variance with all analogy; for in *every* class in which the sense has been unequivocally proved to exist, it is provided with a special apparatus.—T. Williams.]

side, and forms two parallel longitudinal folds, including between them a groove; the colour of the yelk in contact with this membrane becomes of a lighter colour, and more fluid; the groove then progresses into the anterior and posterior parts of the curved lineaments of the embryo, and forms two cæcal pouches. In this primary condition of the mammiferous embryo we are reminded of the digestive sac of some of the radiata, as of the Medusa, where there exists but a single opening communicating within the animal with a dilated cæcal cavity. In the next place, the two cæcal processes elongate, partly by their own growth and the increase of the cavity, and partly by the contraction of the opening of communication with the vitelline sac; this elongation takes place with the greatest rapidity anteriorly, and is met by another cæcal pouch which commences from the surface, and is directed inwards. In this manner the mouth and œsophagus are formed. At about the second or third day a dilatation is observed upon the anterior process, which represents the stomach; and at about the same period, the posterior process divides into two cæcal pouches. The anus then commences from the external surface, and passes inwards to join one of these pouches; so that, at this period, the embryo possesses a mouth and an anus, a straight alimentary canal, with several dilatations upon its course: at about the third day a pair of cæcal pouches are developed from that portion of the anterior process which is behind the stomach, and corresponds with the future duodenum. These processes divide and subdivide, forming a number of pullulations, and constitute, as Malpighi had already observed, the rudimentary liver. At about the period of the formation of the mouth, the digestive canal recedes from the vertebral column, and carries with it a duplication of the serous layer, constituting the mesentery.

Amnios.—It is at this time that the serous layer and the amnios resemble the mucous layer, forming a ventral groove and two terminal pouches. In the Goose the anterior pouch advances with great rapidity, and meets the posterior pouch near the posterior part of the animal. In the Chick the two pouches advance equally, and meet at about the middle of the back of the embryo. In the Emu, as in the dissection now before us, the last opening of the amniotic membrane may be seen near the middle of the dorsal region; after the closure of this opening the two pouches merge into each other, and form one continuous bag.

Membrana Vitelli.—This membrane, which in the egg incloses the yelk, becomes, at a later period, during the development of the embryo, an appendage to the alimentary canal. In the course of six or seven days from the commencement of incubation, a production from the serous and vascular layers surrounds nearly the whole yelk with the membrana vitelli; one small point, opposite to the middle of the embryo, remains unclosed, and near to this point the albumen collects, and forms a mass more dense in consistence than the ordinary albumen: at about the fifteenth day an opening is produced by absorption in the membrana vitelli; and this mass of albumen passes first into the cavity of the yelk, and then into the digestive canal of the embryo, where it serves as a means of nutrition. The vessels which ramify on the membrana vitelli are an artery and a vein; the former arises from the aorta, in the situation of the superior mesenteric trunk, and passes along the pedicle of the yelk-bag to reach the vitelline membrane; while the latter, collecting the blood from this membrane, enters the abdomen beneath the liver, and terminates in the inferior vena cava after assisting in the formation of the vena portæ.

Wolffian Bodies.—At an early period in the development of the embryo, about the second and third day, a glandular body, composed of numerous transverse laminæ, is found in the lumbar region on each side of the vertebral column. These are shortly afterwards joined by two cæcal tubuli, which commence at the cloaca and pass upwards to join the glands, and serve as their excretory ducts; these glandular organs serve the office of removing azote from the system, and have been regarded as temporary kidneys.

Allantois.—At the period of three or four days the rudiments of the legs and wings have made their appearance, and, at this time, so much carbon has been produced by the action of the vital phenomena, that the development of an organ for its removal has become needful. For this purpose a respiratory organ, different from everything which has yet been seen in the animal kingdom, is produced. From the alimentary canal near to the anus is produced a cæcal process, which increases rapidly in size, and soon extends out of the abdominal cavity of the embryo, carrying before it a part of the vascular layer of the germinal membrane. The arteries which ramify upon this membrane are derived from the lower part of the aorta, and correspond with the hypogastric; the veins collecting the returning blood form a vein of considerable size, which passes above the liver and terminates near the heart. This process, the allantois, commencing at the third day, increases so rapidly, that by the seventh it has extended completely around the embryo and yelk, carrying with it the amniotic membrane, and goes on with equal speed until it reaches the membrane of the shell, where it becomes confluent. The allantois, increased to this size, presents two distinct layers, and includes an internal cavity; the embryo, however, as is the case with most reflected membranes, is on the outside of this membrane, as are the viscera on the exterior of the peritoneal sac; the cavity

of the allantois very early receives the secretion from the Wolffian bodies; and the contracted duct of communication with the alimentary canal, forms, at a future period, the urachus. The vascularity of this membrane increases with its growth; and to the blood circulating upon the outermost layer the atmospheric air has access, through the pores of the shell; the internal layer, being in contact with the albumen of the egg, may probably act the purpose of a placenta, and yield to that fluid the oxygen which the blood contained within its vessels absorbs.

By its increase of size, the Chick, pressing downwards upon the yelk, almost divides it into two equal portions. Up to the period of the twentieth day none of the yelk has been received into the digestive canal of the embryo; but at this time the digestive canal dilates, and a portion is received within the parietes of the embryo, so that the yelk consists now of an internal and an external portion, as we have previously seen to be the case in the higher cartilaginous fishes: this internal yelk serves as a pabulum of nutrition to the embryo, and takes the place of the secretion of milk in mammifera.

The nervous system at the sixth day presents distinctly the rudiments of the brain; at about this period the optic nerves are formed, which, at first separated, become soon united in the production of a commissure. Up to the twelfth and fifteenth day the development of the hemispheres is slow; but at this period their growth becomes more active, and they speedily overlap the primitive parts. On the twelfth day the first trace of eyelids is apparent, in a small fold which is seen at the inner canthus; this fold increasing in size forms the membrana nictitans. On the twentieth day the lower lid, the most important one in birds, is produced, and afterwards the upper lid. On the sixth day the rudiments of the cochlea are apparent; and on the thirteenth, the semicircular canals, the tympanum, and the membrana tympani. This progressive development, as pourtrayed in the successive improvement and complication of the organs of higher animals, is traced in the ascending gradation of the lower animals towards the higher. Thus in the Sepia the cochlea alone exists; in fishes, the semicircular canals are superadded, and in still higher animals the tympanum.

Urino-sexual Organs.—The kidneys are developed from the posterior part of the Wolffian bodies, and are soon joined by the ureters, which proceed upwards from the cloaca. The testes are formed on the anterior and inner part of the Wolffian bodies. The ovaria in the female occupy the same situation, but are more flattened and elongated than the testes. The oviducts proceed from the cloaca, and pass upwards; as late as the twelfth day there is little difference between the two cæcal processes; but, at this period, the right becomes arrested in its growth, while the left dilates at its inferior part to form the calcifying segment, and, at the same time, shoots upwards to join the corresponding ovary. The right cæcal process ceases to increase, and finally wholly disappears.

Tegaments.—The surface of the body is at first covered with simple and elongated filaments, which resemble hair. When examined, however, they are found to consist of numerous delicate filamentary processes, having one central fibre much larger than the rest; the whole being included in a thin investing sheath of epidermis. Upon the breaking off of this epidermic sheath, the separated filaments constitute the downy covering of the Chick. The young of swimming birds, which are known to take to the water as soon as they are hatched; and of land-birds, which run about as soon as they escape from the egg, are completely covered with this downy coat before they quit the shell. On the upper mandible of the beak of the Chick is a hard tubercle, which is intended to be used for breaking the shell; the rest of the beak is soft, but with this the young animal strikes against the shell until it breaks its way out. This tubercle is not constant; it is wanting in raptorial and incisorial birds and passeres. These are less advanced in development previously to quitting the egg, and the shell is broken by the parent.

Certain changes, both physical and chemical, take place in the contents of the egg during incubation. Thus, its specific gravity is greatly diminished; in the first week it loses five per cent; in the second, thirteen; and in the third week, sixteen per cent. A fresh egg thrown into water sinks, but one which is near the termination of incubation swims. The air contained within the vesica aeris, besides possessing more oxygen than the surrounding medium, increases in quantity. This receptacle is ruptured by the Chick at about the twentieth day, and, being diffused around the membranes, serves an important office in the early development of the bird. The membrana testæ very early becomes opake and thick, and loses its transparency. The yelk becomes thinner in consistence, lighter in colour, and increased in quantity; phenomena which point to the fact, that a portion of the albumen is being received constantly into the yelk, and serves, very probably, as the chief subsistence of the Chick. The albumen, at first, contains phosphorus, but at a later period this is lost, having, probably, combined with the lime to constitute the calcareous salt of the bones. The origin of the lime in this process is both remarkable and inexplicable. Prout has ascertained that no part of the lime is removed from the egg-shell for this purpose; therefore we must infer the existence of some unknown source for this earth, or look to animal chemistry for some power which shall be capable of converting sodium and potassium into calcium. The trifling loss of

weight that does occur in the shell during incubation is referrible to attrition, for no change whatsoever is observed in those which have been submitted to artificial heat.

Monotremata.—After passing in review the principal facts and circumstances connected with the development of birds, we are, in the next place, led to those mammiferous animals which have been considered to be oviparous. Few facts are as yet known with regard to the modes of reproduction in the Ornithorynchus; but it is well established, that the ova of these animals contain much less vitelline matter than the eggs of birds. When the ova have been in the uterus for some days, they are not larger than a moderate-sized pea. The vitellus is surrounded by albumen, and both are inclosed in a membranous chorion. The yelk is composed of nucleated cells and oil-like particles, and is surrounded by a layer of granules which lie in contact with the membrana vitelli. These observations were made upon some ova which were transmitted to this country in weak spirit. The Ornithorynchus is a warm-blooded animal, and if it be oviparous, it is clear that it must incubate its egg. But the conditions necessary for incubation are absent; there is too small a quantity of vitellus, and there is a total absence of that peculiar apparatus which, in the bird, is calculated to make the germinal vesicle the highest point of the yelk, viz., the chalazæ. From these circumstances we are naturally led to the conclusion, that the ova are developed in the uterus; and in an interesting specimen of the Ornithorynchus sent to this country from Australia, by Mr. George Bennet, the ova are seen in the uterine cavity. The period of coitus in these animals is the month of September; in December the young have been seen measuring about an inch in length. If, therefore, an impregnated female were shot during the month of October or November, the fact of uterine development might be ascertained, and the mode of connection with the uterus. We should infer, analogically, that the young were developed through the medium of the umbilical vesicle; and if the allantois exist at all it would be of small size, as in Marsupiata.

IMPERFORATE HYMEN INTERCEPTING LABOUR.

To the Editor of THE LANCET.

SIR:—From a discussion, which took place at the last meeting of the Royal Medical and Chirurgical Society, respecting the occasional existence of a perfect hymen in womanhood, I beg to inclose the brief description of a case, which lately occurred in my practice. If worthy of publication, its insertion in THE LANCET will oblige, Sir, yours most obediently,

J. MACKINLAY, M.D.

Isleworth, Feb. 25, 1841.

About noon, on the 11th of October last, I was requested to attend immediately on Mrs. B., a healthy young woman, twenty-three years of age, who was said to have been in labour (of her first child) from an early part of the morning. The pains had followed quickly for an hour or two previous to my arrival; and, on first entering the room, gave me the impression of a speedy delivery. On examination, I felt distinctly the hard and rounded form of a child's head descending into the vagina, but the finger was intercepted by some unusual obstruction, which quite confused my examination; on a succeeding pain, the head was felt to be pressing forcibly against a firm and unyielding membrane, in which was an opening, not large enough to admit the point of the little finger. I deemed it necessary to expose the parts, and then saw that the whole circumference of the vaginal passage was closed by this membrane, with the exception of a small round opening in its centre, on which the fœtal membranes were seen resting. On *observing* the effect of a pain, the head seemed to force down, and stretch this septum, but with ineffectual efforts to destroy its integrity, and thus presenting a positive impediment to the passage of the child. Surgical assistance appearing necessary, and being some distance from home, and unprovided with instruments, I gave the patient a full dose of laudanum, with a view to moderate the activity of the pains. On my return, within three-quarters of an hour, and, with the assistance of my partner, Mr. Day, jun., I proceeded to the operation, in itself simple enough. Having first drawn off the urine, a common director was introduced through the small opening, as a guide to a narrow-bladed bistoury, by which a lateral incision was made; this was followed by some degree of hæmorrhage, which was soon suppressed by the pressure of the finger; the fore-finger was then easily admitted, and attempts made, but ineffectually, to destroy, by tearing, the remaining portion. Three more incisions were necessary to complete its division, advantage being taken of the effect of the succeeding pains in stretching the membrane from the walls of the vagina, which allowed greater precision in the application of the cutting instrument; little further hæmorrhage followed, except in one portion, somewhat more vascular, it was of a firm, fibrous structure. The labour then proceeded, though slowly, to a natural termination, the child being born alive, and the mother ultimately recovered as from an ordinary case of parturition. This woman had menstruated regularly from the age of sixteen till she

became pregnant, and had never suffered from disease in those parts, nor was she or her husband aware of any thing unusual having existed.

VACCINE CRUSTS,

VIEWED AS THE MOST EFFECTUAL

PACKAGES

FOR THE PRESERVATION OF

THE VACCINE VIRUS.

To the Editor of THE LANCET.

SIR:—The following letter of the Chargè d'Affaires for the Republic of New Grenada will be interesting to your readers, in illustrating the excellence of the *chest*, for preserving the vaccine virus in its full efficacy, that nature presents to us in the *vaccine crust*. It will afford another evidence of the correctness of the following statements, published in the Report of the Royal Jennerian and London Vaccine Institution:—

"The vaccine pock is similar to the *vitreous* humour occupying the largest portion of the chamber of the eye. It is a compages of vessels with their contained fluid. The *aqueous* humour of the eye escapes by a single puncture, like the virus of the vaccine pock: hence the indurated pock, the scab or crust of the vaccine pock, contains the dried matter in its cells, which, being broken down, and moistened with the wetted point of the lancet, has been found effective in hot climates, when attempts to preserve the vaccine ichor in other forms have failed. The crusts or scabs we have been able to collect in this country we learn, by letters from the East and West Indies, have withstood the heat of their vertical sun, and spread protection through the plantations, and the surrounding districts.

"N.B.—These crusts, when levigated and moistened, and worked into a fine pulp, have been used by many practitioners in tropical climates with the most signal success. Mr. Johnstone, the late secretary of the institution, was the first who suggested this plan. Believe me, with best wishes, sincerely yours,

"JOHN EPPS, M.D., Medical Director of the Royal Jennerian and London Vaccine Institution."

The Embassy of New Grenada in Great Britain.

"London, Feb. 20, 1841.

"Mr. President:—Knowing that you will feel pleasure in witnessing the results, in the Republic of New Grenada, from the different kinds of pus destined to preserve from the small-pox, which your institution had the kindness to transmit to me last year, and which I transmitted forthwith to my government, I have pleasure in transmitting to you the information I have received.

"In the month of March, 1840, an epidemic small-pox broke out in the city of Popayan and in the province, and continued even till August. The matter, forwarded upon my application to you, was immediately employed, and the following are the remarks connected with its use:—

"The trials, made with the *pus contained between glasses*, and with that attached to *the ivory points*, were *unattended* with *any good effect*; but the case was different with the *crusts*. These, broken down (see above), produced the most happy results, and realised pustules having the character of the true vaccine. Great numbers were vaccinated with these, so prepared, in Popayan, and *all with effect*; and this beneficial remedy is now adopted with efficacy every where.

"It is necessary to add, that *a* vaccine pus, which *already existed at Popayan*, produced pustules, but it did *not* produce pustules having the good characteristics which were presented by the pustules in question, &c. &c.

"Towards the end of July, upwards of six hundred individuals had been vaccinated; and although these were continually in contact with those affected with small-pox, not one took the contagion, &c. &c. I have the honour to be your obedient servant,

"M. M. MERQUERA.

"To the President of the Royal Jennerian and London Vaccine Institution."

ASCITES WITH OVARIAN TUMOURS.

To the Editor of THE LANCET.

SIR:—I transmit to you the following case of ascites with ovarian tumours, which, from its singularity as well as its practical interest, I thought might be deemed worthy of a place in your valuable Journal. I have the honour to be, Sir, your obedient servant,

STEPHEN H. WARD.

7, Wellclose-square, Feb. 21, 1841.

Miss ——, 21 years of age, of a lymphatic temperament, in the summer of 1834, became the subject of a swelling in the lower part of the abdomen, which was uniform, being not more evident on one side than the other, and not presenting irregularity of surface. As, however, her health was good, and her appetite but slightly impaired, some difficulty was experienced in the diagnosis, the case being ultimately considered as ovarian dropsy. She at this time had placed herself under the care of Dr. Ramsbotham, sen., who endeavoured

by internal remedies, to dissipate the effused fluid. Being in this unsuccessful, and, at the same time, averse to the removal of the fluid by the trocar, as the swelling was productive of much uneasiness, she consulted a medical gentleman, who attended for about a week, and finding her distress very urgent, performed the operation of paracentesis, and repeated it after an interval of six weeks. She next consulted Mr. Key, who repeated the operation, and noticed a tumour forming on the left side of the abdomen, towards the lower part. In the spring of 1835 she came under the care of my father, when another tumour was observed forming on the right side. During the years 1835, 6, 7, 8, 9, and the early part of 1840, the fluid was removed by him forty times, the quantity at each operation averaging about twenty-one quarts. For the first five years her health was not materially impaired, and in the intervals between the operations her appetite was good and her spirits excellent. The tumours, however, gradually increased, and towards the close of 1839 were so large, as to be productive of constant uneasiness. Her legs became so œdematous, that she was obliged entirely to keep her bed; the sickness was almost incessant, and she was troubled with violent shooting pains in the back and lower extremities. In consequence of my father's illness, in the summer of 1840, she was seen by Mr. Hamilton, who tapped her seven times, at the same time treating her for symptoms indicative of paralysis. During September, October, and November, she was tapped by myself eight times, the intervals between the operations having diminished to about eleven days. Towards the end of October the pressure of the tumours gave rise to such constant sickness, that she could scarcely retain the smallest quantity of food, and the pains in her back and legs were so excruciating as entirely to deprive her of rest; her powers, consequently, gave way, and she died from extreme exhaustion on Saturday, Nov. 28.

Inspection.—About two gallons of fluid escaped on opening the peritoneal cavity; the abdomen was occupied, to nearly two-thirds of its extent, by two large ovarian tumours; the superior of these, situated on the left side, extended from the iliac fossa almost to the diaphragm, filling the left hypochondriac, lumbar, iliac, and part of the epigastric and umbilical regions. On opening it, it was found composed of several cysts, differing in the structure and density of their coats, one of them being much larger than the rest, having cartilaginous parietes, and containing about a pint and a half of pus, partly coagulated. The lower tumour was rather heavier, its weight being about seven pounds, and more solid in structure, presenting, however, several small cysts, differing in the colour and density of the contained fluid. To the outer surface of this tumour there adhered growths analogous in appearance to venereal warts. This tumour occupied, almost entirely, the cavity of the pelvis, being fixed there by extensive peritoneal adhesions, and extending upwards into the right iliac fossa and lumbar region. The parietal peritonæum in apposition with the tumours was entirely disorganised, and converted into cartilage a quarter of an inch in thickness; the peritoneal investment of the liver was also cartilaginous; the intestines were compressed between the tumours and the liver, and pushed upwards and to the right side.

Thoracic Cavity.—Lungs collapsed; heart small and flabby, its parietes very thin; aortic valves cartilaginous.

The peculiarities in this case are,—the frequency of the performance of the operation, the quantity of fluid secreted, and the enormous size of the tumours. The patient lived seven years after the commencement of the attack, during which period she was tapped fifty-eight times. The average quantity of fluid withdrawn each time was twenty-one quarts; the largest quantity being twenty-eight quarts. For twelve successive times, twenty-five quarts were withdrawn; but as the tumours increased, the quantity somewhat diminished. Latterly, after an interval of only ten days, thirty-two pints were withdrawn, so that the fluid must have been secreted at the rate of three pints a-day. The total quantity removed amounted to about 304 gallons.

ON THE EMPLOYMENT OF THREADS OF

CAOUTCHOUC FOR SUTURES.

By Thomas Nunneley, *Esq., Surgeon to the Leeds General Eye and Ear Infirmary.*

There are few practical surgeons who have not frequently felt the want of some new material for ligatures, a different manufacture of them, or an improved method of applying those now in use; hence the variety of substances which, at one time or another, have been recommended for ligatures, and the many different methods of using them, either by various kinds of stitch, or by including other bodies between the ligature and the integument, as portions of quill or bougie, for the purpose of procuring more perfect adaptation of the cut integuments, or of preventing the suture cutting its way out before sufficiently strong adhesion has taken place; but with every precaution which may be taken, it too often happens that the ligatures are obliged to be prematurely withdrawn, owing either to the irritation they produce, the too great stricture of the parts by their swelling subsequent to the introduction of the ligature, or to stop that ulcerative inflammation which nature sets up,

and by which she speedily accomplishes its removal.

More than twelve months since I was induced to try several substances, in the hope of discovering one which should be free from the objections incident to the ordinary ligatures; this, I think, I have succeeded in, or, at least, I have found one which certainly possesses many advantages over the filamentous material now commonly employed; it is that substance which is now applied to so many purposes in the arts—caoutchouc drawn out into fine strings; these threads I have hitherto obtained by removing the fibrous envelope of cotton or silk, with which the Indian-rubber itself is surrounded in the elastic web, at present so commonly employed for bandages. Not being able to procure in Leeds the elastic strings alone, but in London, or where the fabric is manufactured, there could be no difficulty in obtaining them.

The advantages which it possesses as a ligature are, the much longer time it remains without producing irritation of any kind; being elastic, it holds the divided parts in contact with much less stretching, in a more natural manner, and, at the same time, it keeps up an equal degree of temper; for if the parts swell, the ligature gives way in proportion to the pressure; on the contrary, do they contract, so also does the ligature, and an equable approximation is maintained. From being smooth and unirritating, it excites so little disturbance that a greater number of ligatures may be introduced, and thus the parts may be more accurately adjusted to each other; moreover, by not inducing ulceration, the scars left after its withdrawal are less than those produced by silk, are advantages not to be lost sight of in operations about the face and neck.

Though I have not had an opportunity of trying the caoutchouc ligatures in operations for hare-lip, I am disposed to think they might supersede the twisted suture, and thus obviate the introduction of pins, which always leave marks.

In employing the caoutchouc thread, it should be borne in mind that, when put upon the stretch, even to a slight degree, they become much more slender than when perfectly relaxed; consequently this must be allowed for, by selecting a thread which is somewhat thicker than would otherwise be chosen. The ligature should be slightly smeared with oil, when it will pass with the greatest freedom; but care should be taken not to employ too much of that material, otherwise the knot will be liable to slip.

In tying the ligature, care must be taken to draw it so tight that the lips of the wound shall be retained in accurate apposition without making any stress upon the string; the ends should be knotted three or four times, to prevent any danger of their giving way; this will be more effectually prevented, if, in making the first knot, the cord be twice twisted, as many are in the habit of doing with the common thread ligature.

I need scarcely add, that the very qualities which render the caoutchouc thread preferable for sutures for wounds, totally unfit it as ligatures for vessels, where a sharp *nucleastic* string is necessary for first dividing the inner coats, and subsequently retaining them in contact.

UNIVERSITY COLLEGE HOSPITAL.

NECROSIS OF THE FEMUR, OF NINE YEARS' STANDING.—OPERATION.

James Mackin, ætat. 21, admitted Dec. 31, 1840, under the care of Mr. Quain, (Mr. George Canney, dresser,) an Irishman, by trade a tailor, unmarried, formerly of intemperate habits. About nine years ago, whilst digging in his garden, he was suddenly attacked, without any apparent cause, with a violent pain in his left knee. This continued, and became so severe as to confine him to bed. The pain was accompanied by redness, heat, and swelling; and, eventually, two abscesses formed, one on each side of the knee. The inner one being opened by a surgeon, gave vent to a considerable quantity of bloody pus; and, in about a fortnight, the swelling had very much subsided. The knee, which previously had been stiff, now became flexible again. Issues and blisters were repeatedly had recourse to, but with no advantage. Subsequently the outer abscess burst spontaneously. Both openings remained fistulous, discharging, more or less in quantity, a thin, bloody fluid. From the constant discharge, pain, and hectic symptoms, the patient was confined to his bed for three years. He was then able to get up and go about; but the discharge from the wounds continued. About five years ago he suffered from a great increase of pain and swelling; followed, in a few months, by the escape of a small piece of bone, which gave him much relief. In all, twelve pieces of bone have been discharged, mostly from the inner fistula, varying in size from half an inch to two inches and a half in length. The fistula on the outside healed up six months ago.

Present symptoms.—The patient appears to be in tolerably good health; tongue clean and moist; pulse about 70; bowels regular; no flushing towards evening, or night perspirations. There is some deformity of the limb, owing to a slight degree of flexion inwards of the knee-joint. The prominence of the patella is not observed, owing to the swelling; the knee is flexible, and the flexion does not give much pain except when carried to a great extent, and then a severe pain shoots from the centre of the thigh to the tuberosity of the tibia. The fistula is

situated about two inches and a half above the patella, on the inner side of the limb: this communicates with a large sinus, extending two inches or more directly outwards, in which one or more loose pieces of bone can be felt with a probe; the sinus also extends three inches up the thigh. The discharge is thin and bloody, but not fœtid.

Water-dressing ordered to the wound, and to take infusion of gentian, ℥ij; Epsom salts, ℥ij; every morning. Ordinary diet.

Jan. 3, 1841. The patient the day before complained of some febrile symptoms; a dose of house medicine was ordered, which freely relieved his bowels; he is to-day much better. The discharge from the wound is now very fœtid.

7. Headach and nausea have again come on from constipation of the bowels. Ordered house medicine, ℥ij immediately. ℞ Calomel, gr. iij; powder of jalap, rhubarb, aa. gr. xij, to be taken at night.

26. *Operation.* The patient being much improved, Mr. Quain determined to remove the sequestrum. The patient being laid on the table, a thick probe was passed through the wound at the inner side, and under the sequestrum, an incision was commenced in the middle line, about six inches above the border of the patella, and extended downwards for about three inches: from the middle of this, a transverse incision was made inwards to about an inch in extent, and after a division of the cellular membrane and part of the triceps extensor, a sequestrum, two inches and a half long by one broad, was removed by the forceps. The tissues around were much indurated, and offered an almost cartilaginous resistance to the scalpel. A small artery required the ligature. After the oozing of blood had ceased, the wound was brought together with adhesive plaster. Ordered to continue the constant application of cold.

27. The patient stated to-day that he had left a metropolitan hospital, in consequence of being told that the disease required amputation of the limb. Not slept well; pulse quiet. Ordered house medicine, ℥ij. ℞ Calomel, gr. ij, to be taken immediately.

28. Slept better; bowels freely opened. To have a tablespoonful of anodyne at night.

31. Continuing well; wound united at each extremity; free discharge of healthy pus from the centre. Water-dressing ordered, and a compress to prevent the lodgment of matter. No pain in the joint or wound.

Feb. 8. Wound granulating fast, and looking very healthy, and but little discharge. To be dressed with red wash.

10. The ligature came away this morning; bowels open; general health very good; swelling of the thigh much less.

16. Wound quite well.

22. Discharged, cured.

CONCUSSION OF THE BRAIN.—FRACTURE OF THE BASE OF THE SKULL. (?)

John Inecleyer admitted Jan. 3, 1841, at two o'clock, A.M. under the care of Mr. Quain; dresser, Mr. William Barker: a stout and well-made muscular subject. It appears that he is engaged in the service of "The Society for the Preservation of Life from Fire;" and while thus occupied, at a fire in Museum-street, Bloomsbury, he fell through a rent in the sacking of one of their machines, and came, from a height of about twenty feet, directly on the crown of his head.

On admission, very soon after the accident, there is considerable bleeding from an irregular, lacerated, and contused wound of the scalp, over the vertex; there is also bleeding from the right ear. He is insensible, but can be roused. His surface warm, except his feet; pulse 90, very small and compressible; pupils dilated and sluggish, but still sensitive to the influence of light. He vomits a quantity of brownish fluid, ascescent, and mixed with portions of food. The bones of the skull are exposed by the wound, but no fracture can be detected. Let the head be shaved, and cold-water-dressing applied. Bottles of warm water to his feet, and additional blankets.

Ten o'clock, A.M. Bleeding has ceased, and no return of vomiting. Around his left eye there is a distinct ecchymosis. He is quiet; in all other respects the same. Calomel ten grains, followed by a dose of infusion of senna with Epsom salts.

Evening. As before; bowels not yet opened.

4. Nearly as before, as regards sensibility; irritable when roused; pulse 70, fuller, but compressible; head warmer; bowels not opened. Venesection to sixteen ounces; and one drop of croton oil every four hours.

Evening. He seems rather more sensible; pulse 74, softer; his face is rather flushed; dozes a good deal; bowels freely opened. Twelve leeches to the temples; a blister to the back of the neck, and cold to the head. Omit the croton oil; and let him have calomel, two grains, every four hours.

5. He is less irritable when roused; pulse 64, and soft; tongue and lips coated with a tenacious mucus; bowels open. The wound discharges from the centre a thin, dirty fluid. Let him continue.

6. Went on well during the day; but about ten o'clock, P.M., the house surgeon was called, and found him in a fit, which was stated to have commenced with convulsions. He was then completely insensible; breathing stertorous, and froth issuing from his mouth; pupils dilated, but contractile; feet cold; pulse 130, full and strong. He was bled to eighteen ounces, and his pulse soon fell to 96, full but soft. After the fit, which lasted about fifteen minutes, he remained stupid, but not asleep;

his bowels not opened since morning. A drop of croton oil every two hours, and a quarter of a grain of tartar emetic at similar intervals, continuing the calomel, &c.

7. He has had two more fits of the same character; his bowels have been opened, but he now is in nearly the same condition as previously; omit the croton oil.

Evening. Rather less insensible. Head warmer.

8. Five o'clock, A.M. The fits have returned with much severity and increased frequency; after the subsidence of a fit, he could not be roused; pulse 96, rather full, but compressible; pupils dilated, but contractile; he makes water freely; bowels not opened for several hours; feet cold; croton oil, one drop every two hours; bottles of warm water to his feet.

Noon. The fits have changed their character, and now come on almost every twenty minutes, and last about half a minute; when lying quietly, he is suddenly seized with violent convulsive motion of the left arm; his head is inclined to the left side; his mouth is also drawn to the same side, and it is shut and opened incompletely with a violent and rapid action; the lids of his left eye are violently convulsed, and he makes a peculiar catching sound with his breathing. The right leg is convulsed; bowels not yet acted on; to have a turpentine enema, and sinapisms to the calves of his legs.

Evening. His bowels were not opened by the enema; the croton oil was continued; soon after the application of the sinapisms the convulsions ceased; and shortly after his bowels were freely opened: though apparently quite insensible, he makes an effort when occasion requires to leave his bed. The gums seem affected; omit the calomel.

9. The fits have not returned; he manifests some tenderness at the epigastrium on pressure; pulse 80, small; tongue less coated; omit the tartar emetic, and apply fomentation to the epigastrium, followed by a sinapism.

10. He can be more easily roused; pulse 110, compressible; epigastrium still tender on pressure, apply eighteen leeches to it.

Evening. For the first time complains of pain, refers it to his head, and to the epigastrium on pressure; continue the cold to the head, and fomentations to the epigastrium.

11. His intellects are more clear, and he is less drowsy; in other respects the same; continue.

13. Improving, wound looks healthy; takes oranges with avidity, almost the first thing in the shape of nutriment which he has had since his admission; water-dressing to the wound.

17. He improves very slowly, complains of pain at the right side of his head, which is not preternaturally hot.

18. His friends (!) gave him yesterday some improper food, and he is not so well; countenance tumid; head more painful, tongue coated: to have immediately five grains of calomel, with saline aperient mixture every four hours.

19. He is not improved by any means; it is to be feared that he has had some plum-pudding given him, some being found in the locker beside his bed: tongue coated; pulse 86, and rather incompressible; pain over the head. Venesection to twelve ounces; continue the saline medicine. Friends to be closely watched during the next "visit-day."

20. He is better; blood buffed and cupped: let him continue.

21. Much as before; the wound is healthy, and the exposed bone covered over; twelve leeches to his temples.

22. Decidedly better; complains of cough; tongue rather coated. Calomel five grains, and to continue the saline medicine.

23. He has got an attack of bronchitis; a blister to the chest, and a mixture containing squills, ipecacuanha, and mucilage, is to be taken occasionally.

24. He complains of deafness of the right ear, which he says has been coming on for the last few days; from the ear there is a very fœtid puriform discharge; pupil of right eye is more dilated than that of the left. Mercury with chalk, four grains three times a-day.

25. As before; to have the external meatus cleaned out with tepid water (not syringed), and some tepid diluted solution of acetate of lead dropped in.

30. He is better; there is rather less discharge from the ear, and he is less deaf.

Feb. 2. He has some pain at the right side of the head; in other respects the same; to continue the mercury with chalk, and to have eight leeches to the right temple.

8. His intellects seem quite restored, the deafness is less, the discharge from the ear diminished. He has been up for the last two days, and has had middle diet; but he still complains of pain at the right side of his head. Twelve leeches to that temple, and to continue the same medicine.

12. Doing very well; to have mercury with chalk only twice a-day. Full diet.

20. Continues to improve; the deafness decreases; there is less discharge from the ear; he sleeps well, and is free from pain; he complains of some pain and unsteadiness in the articulation of the right side of the lower jaw. Powders only at night.

28. Discharged, cured.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Tuesday, February 23, 1841.

EDWARD STANLEY, Esq., Vice-President, in the chair.

CASES OF CANCEROUS OR MALIGNANT DISEASE OF THE SPINAL COLUMN, WITH REMARKS. By CÆSAR HAWKINS, Esq., Surgeon to St. George's Hospital.

THE author is induced to lay before the society the four cases, whose particulars are detailed in his paper, from a belief of the fact that malignant disease, occasionally affecting the bones of the spine, has not been sufficiently dwelt upon by previous writers. There is no other peculiarity in these cases than such as arises from the locality in which the disease occurs, as the alteration manifested in the bony structure is closely analogous to that described by two fellows of the society, Mr. Salter, of Poole, and Mr. S. Cooper, in the 15th and 17th volumes of the society's "Transactions" respectively. But though the morbid structure is the same in the several instances, and though the disease first manifested itself in each in the form of cancer of the breast, the train of pathological symptoms in the cases related by the author were extremely peculiar and strikingly illustrative of the physiology of the spinal marrow. Thus, in one of these instances, although voluntary power was suspended in every muscle of the limbs, loins, and abdomen, as well as in the sphincters of the bladder and rectum, many of those muscles were, nevertheless, in a state of tonic spasm, while there were also occasionally convulsive or atonic spasms in the same or other muscles of the limbs or abdomen. The abdominal muscles were so permanently contracted as to curve the body forwards, and present rigid masses to the fingers, the pressure of which increased their hardness. The legs could be extended with very little resistance, and would lie flaccid for a few seconds, after which they would suddenly be drawn up again with a feeling of excruciating pain. Sensibility to external impressions was entirely lost in every part below the back, so that the patient could not feel smart pinching or pricking; while in every part violent pain was caused by spasms, either spontaneous or excited, and sometimes occurred even when no contraction was present. The temperature was permanently higher below than above the diseased part, the difference amounting to about four degrees; the urine was permanently alkaline, but free from mucus or albumen. Nutrition was impaired in the usual manner below the disease, so that there was a disposition to the formation of sloughs on any parts exposed to pressure. In all these cases, as has been before remarked, the malignant disease of the spine was consequent upon cancer of the breast; and there seems strong reason to believe that although medullary and fungous tumours not unfrequently originate in bone, ordinary cancer or scirrhus is, at least, very rare, without preceding cancer of some other tissue. The author concludes with some highly important general observations upon the appearances elicited by dissection in the cases detailed, and many valuable preparations of the diseased parts were shown to the meeting.

Dr. ADDISON had, in a debate in the society some years since, expressed his opinion, that in cases of paraplegia, where there was paralysis of the lower extremities alone, the spinal marrow itself was diseased; but where there was spasm, or pain and spasm present, that the membranes of the cord where implicated in the disease. In the debate alluded to, Sir B. Brodie differed from him in opinion. The second case related in the paper appeared, however, to favour his (Dr. Addison's) views on this point. In this case there was complete paraplegia, with painful contraction of the lower limbs present. He should in this case have predicted, before death, that the spinal marrow and its membranes were diseased. After death the spinal cord was found pressed upon, and the membranes had been kept irritated by an ulcerated opening which had been produced in them by pressure.

Mr. CÆSAR HAWKINS remarked, that the opening in the membranes in the case in question could not be properly denominated ulceration; it was rather dependent upon the change of the dura mater into the cancerous disease.

Dr. ADDISON considered that the membranes would be irritated by this cause.

Mr. ARNOTT had seen three cases of malignant disease of the spine; two of the cases were under his own, one under Mr. Tuson's care. In the first case, there were no symptoms of disease of the spine during life; the patient had his arm taken off, three years previous to death, for a malignant disease of the humerus. Some time afterwards tumours of a similar character formed in the cranium, clavicle, and other bones. He died, and the body of one of the vertebræ was found affected with the disease. In the second case, the patient, a woman, received a blow on the temple, which, at the end of three months, was followed by exophthalmia; for this she underwent a course of mercury, and lost her eye. She was admitted into the Middlesex Hospital, and three days afterwards complained of pain in making water. This was succeeded by complete inability to evacuate the bladder, and the catheter was consequently employed. There was pain in the spine and lower limbs, and also in muscles of the abdomen, with much spasmodic action of the latter, but not

of the lower extremities; there was no alteration in the form of the back, but complete loss of power over the lower limbs; the eye now protruded, the tumour in the temple became enlarged, and involved the bones in the neighbourhood. After death, the disease was found to have involved the fourth and fifth ribs at their union with the vertebræ, which were also included in the mass of disease; the dura mater was compressed, and in one place absorbed. In the third case, the patient had suffered from a tumour in the breast, which was removed by operation, and the disease did not return in that part; the patient, however, became affected with paraplegia, and died. The body of one of the vertebræ was found affected with disease of a malignant kind.

Dr. BURNE believed that where there was spasm and paralysis of the lower extremities present, the spasm depended on some cause irritating the spinal marrow itself, and not the membranes. He could, however, adduce no case in which the symptoms in question existed where the membranes were unaffected. Dr. Burne then related a case of a woman who died of phthisis, in whom a hard tumour, suspected to be malignant, had formed over the glands in the neck; it was found, after death, to be a hard, fibro-cartilaginous mass, made up of the original tissues; but the cellular structure had become indurated, and the cells filled with tubercular matter.

Mr. HAWKINS made some remarks, but he spoke in so low a tone that we could not hear him.

WESTMINSTER MEDICAL SOCIETY.

Saturday, February 20, 1841.

Mr. GREGORY SMITH, President.

(*Concluded from last week.*)

REDUCTION OF A HÆMORRHOIDAL TUMOUR.

THE last fact of this kind which I shall adduce, is one to which I have already adverted. Much difficulty has sometimes been experienced, not only by the patient, but by the surgeon, in returning protruding hæmorrhoids. Pressure alone is applied in vain. But if the patient be directed to make a forcible expulsive effort, and pressure be simultaneously made, the tumour frequently recedes immediately; the sphincter is positively relaxed; the ligature which it formed round the tumour is removed, and the reduction is easy.

Would a similar measure aid the accoucheur in returning the prolapsus uteri?

INTRACTION OF THE FEMALE CATHETER.

Intraction of the rectum-bougie is not the only fact of this nature. The female catheter has been suddenly drawn out of the fingers of the surgeon into the cavity of the bladder. A most interesting case is extracted from the "Medical Facts and Observations," vol. i., p. 96; it occurred to Mr. Edward Ford, surgeon to the Westminster Dispensary.

The catheter in question is now, by the kindness of Mr. Copland, in my possession.

The accident, which has thus been described, is by no means rare. Two cases have occurred in which my friend, Mr. Toogood, of Bridgewater, was called upon to extract the female catheter from the bladder under these circumstances. The accident is to be ascribed to successive, simultaneous contractions of the cervix vesicæ and levator ani, excited through incident and reflex nerves, in connection with the spinal marrow.

Mr. STILWELL had used the pharyngeal tube in one case of insanity. It was very easy of application through the nostril, and required to be inserted only to the extent of seven inches; as the food, when passed to that distance, was found to be quite beyond the reach of the voluntary power of the patient.

Mr. BROOKE had no doubt that the plan recommended by Dr. Hall for reducing hæmorrhoidal tumours, by making an effort to evacuate the bowel, and thereby relaxing the sphincter, would be frequently useful. Might not the application of the same principle assist us occasionally in the introduction of the male catheter? He had found in cases in which a stone in the bladder had been broken up, and small portions of the calculus had become impacted in the urethra posterior to the triangular ligament, that their passage back into the bladder, by the pressure of a catheter, had been much facilitated by the patient making efforts to micturate, by which attempts the neck of the bladder became dilated.

Mr. DOUBLEDAY had lately, after illness, suffered from the distressing pain in the rectum, alluded to by Dr. Hall. The pain came on at night, during the first sleep, and awoke him with the agony it occasioned; he put the remedy recommended by Dr. Hall into force, and he was almost instantly relieved; he had suffered from the attack on several occasions, and had invariably found the effort to evacuate the bowel followed by the immediate cessation of the pain.

Mr. WADE had found the pain in question, which he believed to be spasmodic, relieved by the application of a tent of extract of belladonna and soap cerate to the rectum.

Dr. BENNETT confirmed the observation of Dr. Hall, in respect to the influence that irritation of the fauces had in the production of vomiting. He had found that when the Eustachian catheter was adroitly passed into the mouth, it was attended by no efforts to vomit; but when it caught in the velum palati, or pressed upon the tonsils, sickness

was induced. What would be the effect of the use of the pharyngeal tube in cases of hydrophobia?

Mr. WADE suggested that in tetanus, medicine might be administered by the pharyngeal tube.

Mr. STREETER suggested the use of the same instrument in those cases of poisoning in which the patient's mouth could not be opened. Emetics might, by this means, be administered.

Several questions were put to Dr. Hall by various members; by publishing his answers we shall convey all the information elicited by the discussion. He believed that the pain in the rectum referred to was spasmodic; there was a disposition in some spasmodic diseases to be excited in the first sleep; this was instanced in the crowing inspiration of children. He thought the pharyngeal tube might be employed with advantage, both in hydrophobia and in tetanus, but more particularly in the latter disease, in which the patients often perished from inanition. By the administration of food by the tube, time might be given for the action of remedies, and the removal of the disease. In hydrophobia, death was produced by closure of the larynx, and, in his opinion, tracheotomy should be performed. Dr. Physick, of New York, was the first to propose this operation in the disease in question. He, Dr. Hall, would perform tracheotomy in several cases in which the operation was not now thought of. Such, for instance, as in the fatal coma after epilepsy, in which life was suspended by asphyxia. He believed that where children died suddenly, after an attack of crowing inspiration, that the fatal result was dependent upon some morbid change which the blood had undergone during the previous asphyxia, and which had such an effect upon the heart that its action ceased.

Dr. REID had found the tendency to crowing inspiration immediately overcome by the removal of the affected child from London to Highgate.

Mr. STREETER related some cases of crowing inspiration, in which instant death occurred, some time after the cessation of the paroxysm, and when the children appeared perfectly well.

Some discussion followed between Dr. Hall, Dr. Chowne, and Mr. Snow: Dr. Hall contending that cold air was the main stimulus to respiration in new-born children; the two other members, on the contrary, contending that cold air was by no means necessary to the establishment of that process.

Saturday, February 27.

Mr. STREETER, President.

Mr. GREGORY SMITH brought before the society, in a paper, the subject of the

TREATMENT OF PRIMARY AND SOME FORMS OF SECONDARY SYPHILIS.

The paper entered into various points in connection with the disease. Was the syphilis of the present day similar to the syphilis described by old authors, and effecting such fearful ravages among those whom it attacked? The author referred to the description of cases recorded by several of the older writers on the subject, and expressed his belief that the disease, as at present brought under our notice, was very much modified; and this probably was dependent upon the better living and greater cleanliness of the people, and the more scientific mode of treating the disease by surgeons. The paper entered at some length into the question of the plurality of syphilitic poisons, in reference to an explanation of the various characters assumed by syphilitic sores; and the opinion of Mr. Lawrence, on this poison, was quoted, viz., "That if we come to propose a test, we shall find our knowledge of the subject extremely imperfect." It had been abundantly proved by experience, however, that constitution and climate had a great effect upon the character of the poison. The texture of the part in which the chancre was situated had also a marked effect on the character of the sore. With respect to another question, as to whether the entrance of the syphilitic poison into the system after inoculation could be prevented, the author acknowledges the very imperfect evidence we have before us upon which to offer a decided opinion; but expresses his belief that the disease is a local one in the first instance, and may often be remedied by the early removal of the original sore by escharotics. When the constitution had become contaminated, what was the best mode of treatment, and was mercury necessary for a cure? Upon these points the author quoted the experience of Mr. Rose and others, with regard to the employment of mercury, which he thought had been proved by sufficient evidence not to be absolutely necessary for the cure of the disease; that it often did harm, did not prevent the occurrence of the secondary symptoms, and frequently gave rise to a class of symptoms which were the joint effects of syphilis and mercury. With respect to the treatment of the secondary forms of the disease, the author has founded his opinions upon his experience at the Marylebone Dispensary; the patients applying to which are usually above want, and are supplied, if necessary, with bread, meat, soup, and other comforts, from a Samaritan society attached to the institution. He had kept notes of the treatment, and the result of fifty-seven cases of secondary constitutional syphilitic symptoms, which had fallen under his care during the past year: about a similar number were treated by him in the year preceding, but he had less confidence in referring to them, as

he had no satisfactory records preserved. The principal forms of the eruptions had been papular, pustular, and tubercular; some had superficial and excavated ulcerations of the tonsils and velum palati; pains in the limbs, and, in a few instances, thickening of the periosteum, and disease of the bones of the nose. The history of forty-nine of the cases was satisfactorily made out to have followed a suspicious sore on the genital regions, for which thirty-nine had taken mercury, in some form or other, for a longer or a shorter period; and fourteen or fifteen had been salivated, and some severely, for two or three weeks. In eight cases, of which no account could be obtained of any primary sore, six were women; and, from previous observation, the author was disposed to think that M. Ricord was right, when he said that females often suffered from this disease, without being at all aware of the circumstance, and that the use of the speculum had shown a chancre existing high up in the vagina, and sometimes on the neck of the womb, when it had not been in the least suspected by themselves, from any uncomfortable sensations.

Until two years ago the author had been in the habit of treating the different kinds of secondary syphilitic symptoms with the different forms of mercurial preparations, often in connection with bark and sarsaparilla, in imitation of the plan he had seen adopted by others, and on the supposition that mercury was alone to be relied upon for a permanent cure. He had often had occasion to regret its total failure as a remedy, the symptoms, if subdued in the first instance, appeared again and again, and if the medicine were persevered in, it not unfrequently left the patient much exhausted, and with a constitution much impaired. He had since employed the iodide of potassium, and had found it a most safe and valuable remedy in these affections, and had now, as a general rule, laid aside the use of mercury, most especially in those cases in which he found that mercury had been freely given in the treatment of the primary sore. He administered the iodide of potassium in these cases with more confidence than any other medicine with which he was acquainted, and he recollected no instance in which he had had cause to regret its employment from its giving rise to any serious or unpleasant symptoms. He had found it necessary, in the first instance, to occasionally give large doses of the medicine, in consequence of its having been adulterated, but having procured the genuine iodide he had been in the habit of exhibiting it in doses of ten or twelve grains three times a-day; and if he found it agree, he increased the dose to fifteen grains, and in a week or two to twenty grains. He gave it, when he thought the occasion required it, in combination with bark and sarsaparilla, keeping the bowels regularly acted upon by aperient pills; at other times, he gave it in rather large doses in distilled water. The patient was allowed to take a generous diet, with malt liquor, and was particularly cautioned against taking the medicine upon an empty stomach in the morning. Medical friends who were much in the habit of using the salt, had assured him that they could get the best results from two or three grain doses; he had, however, tried it in small doses, and had felt quite disappointed, and had been obliged to return to the larger ones, and then the effects which it sometimes produced in a few days upon an ulcer of the tonsil were almost marvellous. With proper precautions he had never seen any harm or inconvenience arise, except, occasionally, a few slight ulcerations of the gums and mucous membrane of the mouth, which had, however, readily got well under the use of astringent lotions and saline purges.

Mr. Rutherford Alcock believed, with the author of the paper, that the disease, as at present existing, was a modified one. It would appear, however, that the state of the atmosphere, and the constitution of the patient, had much influence in determining the violence or mildness of the symptoms. Climate also made a difference in these: he could confirm the observations of Dr. Fergusson in reference to the venereal being a mild and trifling disease in Spain and Portugal, in which countries it was treated without mercury. This mild form of disease, however, when communicated to a new constitution, was most fearful in its ravages, and would occasionally destroy the whole genital organs in spite of all kinds of treatment. So much was it dreaded by the soldiers in the auxiliary legion, that it was called the "Black Lion." It was evident that the disease had undergone considerable change; John Hunter had described the true chancre to be very common in his time; at the present, it was very rarely to be met with. He (Mr. A.) thought we had not yet sufficient evidence to prove that syphilis could ever be treated safely as a local disease. He was convinced that the occurrence of what were termed "secondary symptoms" was no proof of the previous existence of venereal disease; and he related a case in which a papular eruption and ulcerated throat followed some sores, which were consequent upon the irritation caused by an application for the removal of insects from the pubes. With regard to the plurality of poisons, he thought the facts brought forward in a little work by Mr. Evans, an army surgeon, had settled the point. A case was related in that work of a gentleman, who, on one occasion, had connection with a girl, labouring under a simple leucorrhœa, and he became affected with a chancre. On a

second occasion, connection with the same woman was followed by gonorrhœa, and this by secondary symptoms, which gave way under the use of a mild course of mercury, but returned on two occasions afterwards. Experience had proved that not only was mercury not necessary to the cure of syphilis, but that, when the disease was treated by that medicine, the secondary symptoms, although less frequent, were much more severe. With regard to the iodide of potassium, he had tried it extensively in the secondary forms of this disease. He had found it of great efficacy, particularly in cachectic habits. He began with doses of five grains two or three times a-day.

Mr. BROOKE had used the iodide of potassium with much benefit in cases of secondary syphilis. He had found, in some cases, that patients could not bear such large doses as those mentioned by Mr. Smith, in consequence of their producing headach, vomiting, and other distressing symptoms.

Mr. ACTON believed that generally the venereal disease was modified; but where the same causes were in action, as in former times, we should observe certain isolated cases of a character quite as violent as any that occurred to the older writers on the disease. With regard to the possibility of extirpating the disease before the constitution had become affected, M. Ricord had found, from experience, that when the part inoculated was extirpated within three days after the insertion of the matter, the constitution would be unaffected. It was true, also, that the sooner the local disease was destroyed by escharotics, the less likely was the patient to suffer from secondary symptoms. With regard to the treatment of the disease by mercury and without it, and the evidence afforded on this point by the statistics of the army surgeons, he contended that these statistics were so loose and indefinite that they were of no value. It was merely stated in them, that the patient had laboured under "venereal disease," but the character of the sore was not described. Now, M. Ricord had found that where the primary ulceration was of the phagedenic kind, secondary symptoms very rarely occurred, but that ninety-nine cases of every hundred indurated chancres, unless they were treated by mercury, would be followed by constitutional symptoms. He should be inclined to think that in Mr. Evans's case there was both gonorrhœa and a chancre present in the woman who communicated these diseases to her paramour. Those who had had opportunities of examining women affected with these diseases, would admit how difficult it occasionally was to detect disease in them; indeed, from the constant presence of a lining of mucus in the vagina, it was very rare to see ulcerations in the canal. It must not be forgotten, also, that prostitutes might infest men without being themselves diseased, the vagina merely having received the virus from a recent impure connection. With respect to the value of iodide of potassium in secondary syphilis, he differed with Mr. Smith in thinking it of service in all cases. The experience of M. Ricord and himself had proved that in the primary stages of secondary symptoms the medicine might alleviate, but would not cure; in the second stage, however, of secondary symptoms, when the patient was affected with rupia, nodes, or disease of the bone, iodide of potassium acted with marvellous good effect.

Saturday, March 6.

Mr. STREETER, President.

TUMOUR OF THE LABIUM PUDENDI.—IODIDE OF POTASSIUM.

Mr. R. ALCOCK briefly mentioned a case which he had that day seen operated upon in the Westminster Hospital; it was that of a woman, who had a tumour removed from the inner and upper part of the labium. This tumour was about the size of a kidney, and of a somewhat similar shape: on making a section of the swelling, it was found to contain a smooth, dark chocolate-coloured fluid, which was tested, and no albumen was detected. The fluid was contained in a smooth, very thick, sac. The case was remarkable only from the nature of the contents of the swelling.

The PRESIDENT alluded to some cases of varicose veins in the labia, recorded in a late number of the "Dublin Journal." In one of those death took place from hæmorrhage, consequent upon laceration of the vein during parturition. These cases were occasionally liable to be mistaken for hernia.

A MEMBER related two cases in which a varicose state of the labium had been mistaken for hernia; one of these had been lately published in THE LANCET, in a report of cases at University College Hospital. The discussion on syphilis was resumed, with regard to the use of the iodide of potassium.

Mr. ROBINS never went beyond a five-grain dose; and had seen one instance in which twenty-five-grain doses, given three times a-day, produced poisonous effects. The patient was seized with colic, headach, pain over the eyes, and other distressing symptoms. Much variety existed in the practise of medical men with regard to the doses of this medicine; some never giving more than three grains, whilst others gave as much as a drachm for a dose.

Mr. W. ELLIOTT thought that in cases in which such large doses as half a drachm and a drachm were given, the salt must be adulterated, as it very commonly was with the bicarbonate of potash. He had had much experience with this medicine, and had never been able to give anything like

such large doses as those mentioned. Sir B. Brodie had told him that his experience of the effects of the medicine never warranted him in giving more than three grains of it for a dose. He (Mr. Elliott) had found that commencing with one-grain doses, and continuing them three times a-day, gradually increasing the quantity until it reached three or four grains, usually soon affected the system, as was indicated by smarting of the eyes, pain in the frontal sinuses, &c.

Mr. SMITH had never found any ill consequences result from the use of the iodide of potassium. There were, no doubt, as in the case of mercury, peculiar constitutions in which the medicine could not be borne, but these were not common.

A MEMBER remarked, that Dr. Elliotson usually commenced this medicine in two grain-and-a-half doses, and gradually increased the quantity until some effects were produced upon the system. It was no uncommon occurrence for headach, pains in the eyes, and other symptoms, to come on during its use; the dose was then diminished, or the medicine discontinued altogether.

MEDICAL SOCIETY OF LONDON.

Monday, March 8, 1841.

THE anniversary meeting of this society was held this evening, at the London Coffee House, when Dr. Chowne delivered the oration to a very numerous auditory, the greater portion of whom afterwards sat down to an excellent dinner.

BRITISH MEDICAL ASSOCIATION.

Exeter Hall, March 2, 1841.

Dr. WEBSTER, President, in the chair.

THE minutes of the last meeting were read and confirmed.

The transactions of the Cornwall Medical Association were laid on the table.

The report of the College of Surgeons of Scotland on medical reform was laid on the table.

A circular calling a general meeting of the medical practitioners of Nottingham and neighbourhood was laid on the table.

Resolved, That a petition, embodying the views of this Association on the subject of poor-law medical relief and remuneration, be drawn up and presented to the House of Commons, &c.

After some discussion as to a restrictive clause against chemists and druggists being introduced into any Bill which might come before Parliament, the meeting adjourned until March 9th, 1841.

March 9, 1841.

R. DAVIDSON, V.P., in the chair.

The minutes of the last meeting were read and confirmed.

Hugh Valance, Esq., M.D., Brixton-road, was unanimously elected a member of the Association.

Resolved unanimously, "That petitions (according to a form agreed upon by the Medical Conference) be presented on or before the 17th inst., by the British Medical Association, to the House of Commons, praying for the second reading and committal of Mr. Hawes's Medical Reform Bill, which contains the leading principles *first* advocated by this Association; and that the profession throughout the United Kingdom be recommended to forward petitions to the same effect."

Resolved unanimously, "That deputations should wait upon several leading members of the House of Commons, without reference to political distinction."

ASSURANCE COMPANIES.

The Committee appointed by the Association to correspond with Assurance Companies, reported that the recommendations of the Associations had been attended to with the most beneficial results; and that the Committee had reason to believe that the profession were uniting to protect their interests in all parts of the United Kingdom; they strongly advised practitioners in every part of the country to persevere in their refusal to fill up reference letters from assurance companies, confident that a successful issue can alone result from union in a just cause.

The meeting then adjourned until Tuesday, March the 16th.

THE MEDICAL CONFERENCE.

A DEPUTATION from the Conference had an interview, at the House of Commons, on Friday, 26th ult., with Mr. WARBURTON, Mr. HAWES, and Mr. WAKLEY.

The following delegates attended:—Dr. Sharpey, Dr. Webster, Dr. Marshall Hall, Dr. M'Donnell, Dr. Maunsell, Mr. Davidson, Mr. Farr, Dr. R. D. Thomson, Mr. C. T. Carter.

Mr. WAKLEY inquired of Mr. Hawes what alterations he had made in his amended Bill, which had been introduced that evening.

Mr. HAWES replied, that he had left out all clauses relating to chemists and druggists, and those referring to the penalties he had formerly proposed to inflict on unlicensed practitioners.

Mr. WAKLEY asked, if some gentleman would state the express object of this meeting.

Dr. WEBSTER said, that the Medical Conference having arrived at certain conclusions respecting the principles of medical reform, had requested the honourable members present to meet them, as the delegates were most desirous that those gentlemen should unite in framing one Bill, which should comprehend the principles laid down by the Conference, and which, he believed, did not differ materially from those which had been embodied in the respective Bills of Mr. Warburton and Mr. Hawes. They wished to consult the honourable members as to the best mode of giving effect to their principles, and to ascertain if the latter could receive their joint approval and support.

Upon clause second being read,* Mr. WAKLEY inquired if there were to be lay-members in the Councils.

Mr. WARBURTON observed, that as nothing had been said about them, they had better confine themselves closely to the contents of the paper before them.

Clause 7. Mr. WAKLEY inquired what was meant by practising medicine; had the Conference affixed a definite meaning to the expression?

Mr. CARTER said, they held that any one practised medicine who had treated disease for remuneration or gain.

Mr. WAKLEY said it was most difficult, although absolutely necessary, to give a definition of what should constitute the practice of medicine; but the difficulty ought to be met, for it would be requisite to settle the point before legislating upon it.

Mr. WARBURTON remarked, that he went much further than most persons in his view of illegal medical practice. He thought that a person was practising medicine if he gave advice with respect to diet, change of air, &c. He conceived it was impossible to limit the practice of medicine by any verbal definition, and he thought it was quite preposterous to attempt to put down irregular practice by penalties or other legal proceedings.

Dr. WEBSTER did not imagine that the suppression of what was commonly designated as quackery, was the main consideration. Medical men suffered greater injustice from the counter-practice of the druggists, than from the advertising vender of nostrums. He was sure that if Mr. Warburton were fully aware of the dangerous tendency of the former, that he would modify his opinions as to the expediency of attempting to suppress illegal practice.

Mr. WARBURTON could not give the slightest encouragement to any such idea; he was opposed to coercive measures himself, and he should oppose them, uncompromisingly, if brought forward by others. He foresaw the consequences if the attempt at putting down unauthorised practice were to be made; the profession would be opposed by a large portion of the House of Commons, and the corporations would take the advantage of such disunion; so that between the two the profession would be outvoted. The profession should make up their minds as to this point at once, and endeavour to be united before they came before the Legislature. This appeared the only thing in which there was a difference of opinion amongst reformers.

Mr. WAKLEY said, he did not believe that the profession at large would be satisfied with any Bill which did not contain a coercive clause against unlicensed practitioners; his opportunities of learning the sentiments of medical men, during seventeen years, led him to that conclusion; but the question was one of vital importance to the welfare of the community. The dangers arising from the unrestricted practice of medicine, by unqualified persons, had reached to a most terrific magnitude. He did hope that further consideration would convince Mr. Warburton of the necessity of taking measures for correcting them.

Mr. WARBURTON declared his opinion on this point to be unchangeable; and he was borne out in his opinion by the Colleges of Physicians and Surgeons of Edinburgh, and by the College of Surgeons of Dublin.

Mr. WAKLEY said, let a coercive clause be introduced for England; if Ireland and Scotland were opposed to it, let them do without such clause. Mr. Warburton had not acted on this free-trade principle in his proceedings with respect to the security of capital embarked in railways. Was human life not equally valuable with property?

Dr. WEBSTER thought illegal practice was not so prevalent in Ireland and Scotland as in England. Mr. Wakley had instanced Mr. Warburton's principles of protection in respect to money embarked in railways. Were not the conductors of steam-carriages to be licensed in future.

Mr. FARR observed that pilots were also licensed.

Dr. M'DONNELL did not think the analogy a good one between practitioners and railway enginemen and pilots. He thought it quite Eutopian to expect to put down illegal practice by Act of Parliament. Many members of the House of Commons were strenuous supporters of quackery.

Mr. DAVIDSON hoped that for the credit of the House of Commons such was not the case; he was of opinion that medical legislation, without restrictive enactments against quackery, would do no good.

Mr. HAWES said he had formerly been quite of an opposite opinion with Mr. Warburton, on the subject of unqualified medical practitioners, but, on further consideration, he had been compelled to coincide with the views of his honourable friend; and

* See opinion of the Conference, in THE LANCET for February 27, 1841.

without the slightest communication with Mr. Warburton, he had withdrawn his coercive clauses. At the same time, he should not dislike to see some member take the sense of the House upon the point, by moving an amendment; and he should be glad if Mr. Wakley would do so. He believed that if a representative council were to be obtained, it might exercise great influence with the Government, and might suggest means of diminishing, if not of suppressing, illegal practice. To attempt a sudden abolition, would be to risk the success of other parts of a Medical Bill.

Mr. CARTER said he could see no objection to the course recommended by the honourable member for Lambeth. The coercive clauses might be omitted from his Bill, and an amendment might be moved by way of ascertaining the sense of the House of Commons on this important point.

Mr. FARR said it might be worth while to let the clauses in question stand over at present, if, by their omission from Mr. Hawes's Bill, the co-operation of Mr. Warburton could be secured.

Dr. MAUNSELL observed, it would be most unwise to risk the safety of any Bill, and to prevent the co-operation of Mr. Warburton and Mr. Hawes, by insisting on the coercive clauses.

Mr. WAKLEY said, if he found that the profession were willing to support a Bill without restriction on unqualified practice, he would not withhold his support from that Bill.

Dr. WEBSTER said, it would be necessary for him to consult the Council of the British Medical Association, before he could give up the said clauses.

Mr. WAKLEY inquired if Mr. Hawes intended to insist on the possession of a degree or diploma from some existing medical body, by all candidates for the examination of his proposed councils.

Mr. HAWES said he would not assert that he was unprepared to modify that part of his Bill: his object must be quite intelligible in making such a provision.

Mr. WARBURTON was quite awake to Mr. Hawes's views and intentions in the providing of a protective clause to these institutions. He believed if the profession would act together, they would eventually obtain an excellent measure of reform, independently of the corporation influence. Such success could not be looked for at first, for each member of Parliament had in town his medical confessor, who, in the great majority of cases, was connected, in some way or other, with those bodies: he thought that in time the colleges would be mere establishments for the promotion of science. He should be happy to co-operate with Mr. Hawes, if the latter gentleman would forego all coercive measures. In every respect but in this there was no difference of opinion between the delegates, Mr. Wakley, and himself; let that be suspended, and they might join in supporting the same Medical Reform Bill.

The deputation thanked the honourable gentlemen for their courtesy in meeting them, and for the zeal and interest they had shown in medical affairs: they had placed the medical practitioners of this country under lasting obligations.

The delegates then retired.

The delegates, at their meeting on Monday, 8th inst., passed the following resolution:—

"That, in the opinion of this Conference, it is most desirable that every effort should be made to procure the second reading and committal of Mr. Hawes's Bill, which contains the general principles of medical reform, already sanctioned by the Conference."

A petition was also agreed to, which has been printed and sent in a circular to various parts of the United Kingdom; it is as follows:—

To the Honourable the Commons, &c.

The Petition of the undersigned Medical Practitioners, residing in

HUMBLY SHEWETH,

That, in the opinion of your petitioners, the Bill "for the better government of the Medical Profession in Great Britain and Ireland," is calculated to confer important benefits upon the community.

Your petitioners, therefore, humbly beg, that the *principles* of that measure may receive the sanction of your honourable House, and your petitioners, as in duty bound, will ever pray, &c.

Mr. C. T. Carter having resigned the office of secretary to the Conference, Dr. R. Dundas Thomson has been appointed to succeed him.

THE NEW POOR-LAW.

THE following is a copy of the petition, which was presented to the House of Commons by Mr. WAKLEY, from Mr. ARCHDEACON BATHURST, of Norwich:—

To the Honourable the House of Commons, in Parliament assembled.

The humble petition of the undersigned ARCHDEACON of NORWICH, of the diocess of Norwich,

SHEWETH,

That your petitioner begs leave to represent to your honourable House, that by the 6th and 7th Will. IV., c. 71, entitled an Act for the Commutation of Tithes in England and Wales, it is enacted, that "every rent-charge, payable as aforesaid instead of tithes, shall be subject to all Parliamentary, parochial, and county and other rates and charges and assessment, in like manner as the tithes

commuted for such rent-charge have heretofore been subject."

That the rule of such charge, since the case of Jodrell was decided, as affecting the assessment of tithes, was, previously to said Act of 6th and 7th Will. IV., that the tithes, great and small, should be assessed as five to twenty-five of the assessment of land.

That by a letter from the Poor-law Commissioners, arising out of a case decided in the instance of the Hon. and Rev. Mr. Capel, directions were given to overseers to assess tithe commutation rent-charge to the full net amount, without any reference stated to previous proportion assessed between tithe and land, and without any notice of the liability of occupiers of land to be assessed, not only for rent, but for profits of stock in trade; and to render the operation of this letter more oppressive by the clergy, the Attorney-General brought in a Bill, at the heel of the last session of Parliament, to suspend the liability to assessment on the part of personal property and stock in trade, and thereby to fix, by law, the injury offered to tithe property, this Bill having, as it would seem, through insufficiency of time for full consideration, passed into a law.

Your petitioner considers the result of the above Bill to be nothing less, in effect, than a fraud upon the tithe proprietor, virtually changing, to the disadvantage of one party, the terms in which the original contract of commutation was made; and your petitioner requests that by some conciliating adjustment this injustice may be remedied.

And your petitioner in particular still further feels reluctant to submit to such injustice without remonstrance, inasmuch as the provisions of the new Poor-law Amendment Act contain clauses, many of them repugnant to the humanity and the feelings of a Christian country, bursting asunder the tenderest connections of life, reducing innocent poverty to despair, disgusting to the general feelings of human nature, and the source of those bitternesses of public discontent which have broken out among the lower orders of people within no long time past; and to remove which cause of discontent belongs to every sincere friend of social and political liberty; and most gladly, while your petitioner admits the necessity of checking fraud and imposition, such as the new Poor-law was intended to check, would your petitioner see some milder and more effectual plan substituted, whereby facilities may be afforded to provisions for the poor, in sickness and in age, derived from reasonable aid given to their own industry and economy, the legitimate, though aid-requiring, basis of their provision and independence, instead of making, as it were, a fresh Bill, now proposed to be "*a little finger bigger than the father's loins*," in reply to remonstrances which the framers thereof themselves have caused.—And your petitioner, &c. HENRY BATHURST.

THE LANCET.

London, Saturday, March 13, 1841.

In another part of this Number of THE LANCET will be found an account of some of the proceedings of the *Medical Conference*, which, notwithstanding the natural difficulties it had to encounter, the systematic attempts of certain anti-reformers, and errors, either inherent in its constitution, or arising from the inexperience of the delegates, has been productive of more good than we ventured to anticipate. The Conference has unanimously recognised in the "opinions," which we have already published, the fundamental principles of Medical Reform: the incorporation of the members of the medical profession in One Faculty, with equal legal rights, privileges, and immunities,—the representative principle of government,—and the ordinance of an uniform test of qualification, applicable to all future candidates for the licence to practise. The members of the Conference had interviews with the existing corporations, and elicited their narrow, selfish views on medical affairs. They finally placed the collective "opinions" of the Associations in the hands of "Mr. WARBURTON, Mr. HAWES, and Mr. WAKLEY," who had expressed intentions of bringing measures of Medical Reform before Parliament. The Delegates, when they return to their respective constituents, will, we hope, labour earnestly in the cause of real reform, to which all the Associations are formally pledged.

The "opinions" of the profession, broadly stated by the Conference, have already alarmed the secure monopolists into professions of self-reform, and the promise of concessions to the just demands of their members. No argument is necessary to prove to those who know anything of corporations that their professions are idle, and are intended only to gain time, or to divide and weaken the strength of the Reform party.

Why does the mollusc cover itself in the waters with a dark, inky cloud? Why does the castor, in the fabulous history of nature, bite away its odorous gland? Why do certain well-known characters, who happen to have other people's property in their possession, cast it from them, or promise "to do so no more?" Is it not in all cases to escape pursuit? But let us remind those "simple" persons who may be led, from ignorance of the history of corporations, to place some faith in the declarations of the London close councils, that self-elective bodies never yet reformed themselves. Would the rotten boroughs have given up their "rights," or the jobbing municipal councils have abandoned their posts spontaneously, or have made any reasonable concession to their constituents? Certainly not. And we defy the world to point out a single corporation of any kind that has displayed more concentrated selfishness than have the London corporations; or a more flagrant forgetfulness of its public duties; or a greater disregard for the interests of its members?

Yet the "*Worcester, or Central, Council* of "the Provincial Medical and Surgical Asso-"ciation" resolved, on the 27th of February last, to abide by "their former resolution "of *considering* the measures of Medical "Reform which are promised by *existing* "*institutions, before they proceed farther.*" Good souls! But *who* are these gentlemen of Worcester? Who are they that attempt to stultify the proceedings of all the Delegates of the Provincial Association, who appeared to be *sincere* reformers,—and to call down universal contempt upon the body to which they belong? Who are these suppliant waiters upon Providence—the small band who lift up their eyes and hands to Sir HENRY HALFORD, and ANTHONY WHITE, and GEORGE JAMES GUTHRIE, and the Company of Apothecaries—in the far-off city of Worcester—where the immortal BERROWES—the *genius loci*—still wears his bays, and shows his ears? We beg, by the way, to direct attention to the *amusing* resolutions of the Worcester Council, and to the temperate, just, and able letter of Mr. CARTER. These resolutions will form a bright passage in the history of the Council. With all their praiseworthy attempts to abrogate the acts of the Delegates of their own Association, and to weaken and vilify the Conference, they will show off in great relief at the next meeting in York. We shall have many opportunities, in the interim, of directing the attention of the members to the acts of the "*Worcester Council,*" in opposition to "*the Council*" of the Provincial Association.

Is it true that Dr. GEORGE BURROWS has held out any hopes, in his correspondence with Dr. HASTINGS, of the possible contingency of a Fellowship in the College of Physicians, should the efforts of the numerous sincere reformers in the Provincial Association be rendered abortive? The idea is not unworthy of the old TALLEYRAND of Pall-mall; and certainly throws some light on the Worcester policy ending in the "finality" resolution. Why did the Council petition for reform? Why did they send *six* Delegates to the Conference? Why did the Worcester Council invent a pretext for destroying the influence of the Provincial Association? When the sly foxes of the Corporations were unearthed, and ran, with the voices of their pursuers in their ears, and the recollection of their larcenies in their hearts, why did the Worcester whipsters cry to the field, "Hold off; "we must see whether the Corporations "will not throw themselves in our way, and "give themselves up as they have promised, "*before we proceed any farther!*" Under what inspiration was this wise and spirited resolution taken?

Why does not the *Worcester Council* honestly discharge its duties, and carry out the resolution of the public meeting at Southampton, in sincerity and truth? The Corporations look down upon them, with inward contempt, as illegal, unlicensed practitioners, tolerated, but not recognised, by the laws; and they can only gain the respect and esteem of their brethren by zeal and earnestness in

the cause of the reform which they profess to have espoused. For all their acts they may be called to account by any independent member at York; and the acts which Mr. CARTER has exposed in his manly letter—a letter highly creditable to the men of the north,—will not tell very well at a public meeting. What good can they say that they have done, in their next Report?

PROVINCIAL MEDICAL AND SURGICAL ASSOCIATION.

COUNCIL MEETING, HELD FEB. 23, 1841.

Resolved,—That the council do not consider that the Provincial Medical and Surgical Association is pledged to support the Bill which may have been adopted by the conference of the medical associations in London, since some of the delegates appointed by their council have not attended,* and others have resigned, and the council are ignorant of the nature of the clauses of the proposed Bill.

Resolved,—That this council think it desirable that the reform proposed by the medical corporations in London should be submitted to them for consideration.

Resolved,—That the resignation of the delegates, Dr. Forbes, Dr. Cowan, and Dr. Hennis Green, be accepted, and that no other delegates be appointed.

An immediate expostulation appears to have been addressed to the *Worcester* Conclave by a majority of the members of the *Council* who were present at the Conference, and happened to know nothing of the resolutions which they, as part of the Council of the Provincial Association, were said to have passed.

COUNCIL-MEETING, FEB. 27, 1841.

Resolved,—That this council abide by their former resolution of considering the measures of medical reform, which are promised by existing institutions, before they proceed further.

Resolved,—That it does not appear to this council that it is necessary to appoint an agent at present in London; but whenever circumstances require this step to be taken, they will be prepared to meet the wishes of the conference.

Resolved,—That this council are exceedingly anxious to do all in their power to assist in the settlement of the long-agitated question of medical reform, and will continue to meet at short intervals to give their best consideration to the subject.

* Mr. Crosse, of Norwich, and Dr. Barlow, of Bath, never attended the meetings of the conference.

THE MEDICAL CONFERENCE.

To the Editors of the Periodical in which the Resolutions appeared.

Gentlemen:—In justice to the medical delegates now assembled in London, I hope you will allow me to make a few remarks on the resolutions passed at a meeting of the *Worcester, or Central, Council* of the Provincial Medical and Surgical Association, on Feb. 23, and published in the journal of last Saturday.

The first resolution is to the effect, that the council do not consider the association "pledged to support *the* Bill which *may have been* adopted by the conference of the medical associations in London, since some of the delegates appointed by their council have not attended, and others have resigned, and the council are ignorant of the nature of the clauses of the proposed Bill." Upon this I have to observe, that if the Worcester Council *had taken the trouble to inquire into the subject*, they would have found, that no Bill has been prepared, or is likely to be prepared, by the conference; and that for the non-attendance and resignation of *some* of their delegates, the Worcester Council have, in a great measure, *to blame themselves*. Your readers are informed, in a note by one of the editors, "that Mr. Crosse and Dr. Barlow have *never* attended the meetings of the delegates." Mr. Crosse states, that his consent was never asked, or he must have "inevitably declined," on account of other engagements, to act as a delegate. Dr. Barlow was appointed in *direct opposition* to his wishes; and although he peremptorily refused to come to London, the worthy gentleman's name was, nevertheless, made use of, much, I believe, to his own annoyance. None of the other delegates, so far as I know, were consulted as to their willingness to represent the Provincial Association in the Conference, and they *have been in ignorance whether their travelling expenses would be paid*, until yesterday, when, in reply to a statement relative to this point, which was forwarded to Worcester on the 23rd ult., the Council declare, "that they are willing to defray any reasonable expenses that may have been incurred by their delegates."

The second resolution states the desire of the council, that "the reform proposed by the medical corporations in London should be submitted to them for consideration." This is a very reasonable desire, and one which I am sure the council will share with their professional brethren in all parts of the United Kingdom. The profession is most eager to behold and to consider the said plan; its advent has been looked for with anxiety for some years; but if, when it shall appear, it be found to embody the views expressed to the conference by the Colleges of

Physicians and Surgeons, and by the Society of Apothecaries of London, I venture to predict it will fail to satisfy the profession at large.

The third resolution has reference to the resignation of Dr. Forbes, Dr. Green, and Dr. Cowan. The two first of these gentlemen are doubtless prepared to state the grounds of their resignation. I hope, for their own sakes, as well as for the sake of others, that they will do so. Respecting Dr. Cowan, there must have been some mistake, since he was present when the resolutions were read to the delegates, and *subsequently* formed one of a deputation, which had an interview, on Feb. 25th, with the president and censors of the Royal College of Physicians.

It may be thought that the opinions of the Provincial Association have not been adequately represented in the conference.* Upon this subject I shall only observe, that of *twenty-one* delegates who *have attended* the meetings, *twelve*, at the least, are members of the Provincial Association, and not fewer than *ten* are members of its council, although but *six* were the delegated representatives of that body. It was *at the instigation of one of the latter* that it was determined by the delegates that their proceedings should not be published until their termination. When a report is furnished (and you will be glad to learn that measures have been taken for supplying a report), the profession will be enabled to pass its own unbiassed judgment on the transactions of the conference.

Having at Southampton seconded a motion for entrusting to that section of the council, which consists of members resident in the city of Worcester, the duty of taking such measures as they might deem expedient until the next meeting of the association, for promoting the success of medical reform, *I sincerely hope they may be enabled to render to their constituents, when they shall meet them at York next July, a satisfactory account of their labours.* In the mean time, let me assure them, that no principle in reference to that important subject has been adopted by the conference, which is, in the slightest degree, inconsistent with the recorded opinions and proceedings of the Provincial Medical and Surgical Association.

Much has been said of late in your journal respecting a Bill which has been prepared by the council of the British Medical Association. It is true, that *before the conference met*, the members of that body had, after much labour and consideration, drawn up the outlines of a Bill; but this I conceive was simply for the purpose of embodying their own views on the provisions which, *in their own opinions*, should constitute a Bill. In fairness to the British Medical Association, I am bound to say, that their representatives have shown no desire to intrude their Bill upon the conference. They have, on the contrary, displayed a wish to cultivate unanimity, by making every concession on disputed points which they thought was consistent with their principles, and with the instructions they have received from the council of their association.

I rely on your sense of justice to give publicity to the foregoing explanations, and remain, Gentlemen, your most obedient servant,

CHARLES T. CARTER,
Secretary of the Medical Conference.

London, March 3, 1841.

* This had been stated in the periodical referred to, at the instance, apparently, of the Worcester council.

REFORM OF THE MEDICAL PROFESSION.

To Benjamin Hawes, Esq., M.P.

CLAIMS OF THE CHEMISTS.

SIR:—While the Medical Reform Bills were, as we supposed, in progress through the House, I deemed it superfluous to comment on their details; but the indecision of our legislators is such, that it seems they have yet to learn the truth and justice of the question.

It was clear from the first that the Bill of the honourable member for Bridport was a failure: your own promised more fairly, at least, to meet the wishes of the multitude. Yet at the eleventh hour, its progress has been thwarted by a mere assemblage of druggists. You have thus been scared from your purpose of legislating, by a convocation of tradesmen who, under the mask of public beneficence, demand the sanction of the State for their invasion of important professional rights. If you are thus easily frightened by these shadows, it is to little purpose, indeed, that the profession has met, and debated and petitioned.

It was this sort of cowardice which emasculated the practical clauses of the Apothecaries' Bill of 1815; and if the Reform Bill does not at once dissociate the profession and the trade, it will be as fruitless. The chemists would, in the end, claim nothing less than the unlimited practice of medicine, and this claim would have been negatively admitted by the withdrawal of certain clauses from your Bill. What, Sir, would the lawyers think, if the law-stationers of the metropolis were to follow this example, and claim the privilege of practice without admission to the courts, merely because they can engross a parchment or a deed? Would the Legislature truckle to the law-stationers as it has done to the chemists? A *limited* counter-practice of the chemist

has scarcely ever been objected to, but their present arrogant claim cannot pass without the severest censure; based as it is on an affected sympathy with the poor. For them the metropolis, especially, has dispensaries almost in every street: one, indeed, somewhere about Holborn, (in imitation of the mock parsons who once angled for amorous couples in Fleet-market,) goes a begging for patients, beseeching them to come in and be cured. I do not hesitate to confess, that the chemist has some reason to complain of the drug-selling of the general practitioner, for with all our nominal divisions, professional science is most strangely and unwisely associated.

Without any comment, at present, on universal suffrage and registration, and other points of your Bill, I may remind you that while you are legislating point-blank against the corporations, you are really doing little or nothing for the general practitioners, if you do not reconcile the jealousies that exist between them and the chemists.

And what ought to be the grand principle of legislation?

It is clear as noon-day, that where so many vested interests are in opposition, there must be *mutual concessions*. If this were acknowledged by the profession, it would not be difficult to reconcile these opposing causes, so as to ensure a coalition of interest throughout the medical world; alike honourable to itself, and beneficial to mankind.

This can only be done by an *association* of *all* the classes or grades; not by mere ex-parte petitions of each separate class. What was the effect of that mass of conflicting evidence so properly elicited by Mr. Warburton, but so to bewilder his thoughts, that even his acute vision has been hoodwinked ever since. The Bill worked out from that evidence was not presented, for it was certain of not being duly honoured. To reduce that chaos of evidence to a law was impossible; and Mr. Warburton, for his futile attempt, is more to be pitied than censured. I have much to write on the etiquette of the profession itself. I waive this for the present, as I must be very brief in my conclusion on the one essential point. The general practitioner should dispense only in cases of emergency from his own medicine chest, and, of course, the items of drugs should not form a component part of his account. The chemist should be the pharmacien of France, and over him only should the Apothecaries' Company exert a controlling influence, and to him only should their licence be granted. He should not prescribe except for mere casualties, nor presume to visit a patient abroad. To him should be confided almost the whole dispensing, especially in the metropolis and large towns, the per-centage on his drugs being considerably reduced.

On many other important points I will not presume at present to comment. I remain, Sir, your most obedient servant,

March 3, 1841. Δ.

THE TENDER SYSTEM.

"Aliquis malo sit usus ab illo."

To the Editor of THE LANCET.

SIR:—I have observed that from the earliest introduction of the New Poor-law, it has met with your decided disapprobation and repudiation, and no doubt you have maturely considered the grounds of your opposition, and conscientiously believed that every argument which you have advanced against it was directed by truth and impartial justice. It is not my intention here to make a comparison between the old and the present law, or to trouble you with a discussion upon their merits or demerits, both of those points having been so fully and fairly canvassed by the public press, that I presume most men's minds are well informed on the subject. There is one part of the working of the new machinery, however, to which I am anxious to direct your and the public attention,—I allude to the "tender system," which I presume you will admit has pressed heavily on the interest of the medical practitioners. But I must here pause and consider, whether the combined wisdom of our Legislature, or those to whom they delegated power under the provisions of the Act, ever contemplated the infliction of an injury on our profession in particular. I apprehend that many Acts are passed by our Legislature, the true meaning, intention, working, and ultimate objects of which the public do not always immediately comprehend, but which become more fully developed as time advances, and as other measures are engrafted on them. There are, I believe, in the great field of Parliamentary tactics such things as bills sent out as feelers, to try the pulses and opinions of the public. Thus, for instance, it has been said that the Test and Corporation Act was repealed as a prelude to the more extended measure of Catholic Emancipation. Now, therefore, looking at this measure (the tender system) the professed liberality of its advocates, their patriotism, their anxious solicitude for the well-being and prosperity of the nation; and coupling this with the serious defalcation of the revenue, and the imposition of ten per cent. on our assessed taxes, I cannot, in common charity, conclude otherwise than to take it for granted that the experiment was made on our profession as a prelude to operations on a much more extended scale. And here my mind glances with such rapidity at advantages so great, so happy in their effects, that my pen cannot keep pace with my ideas. It has been said that a great

statesman, in the reign of George the Third, was so bewildered and puzzled how he should invent a new tax, in order to increase the revenue, that he actually offered a premium to any one who would devise a plan for the purpose. Many brooded over his wishes, till at length some fortunate person hatched that pretty bantling the "window-tax;" and to this day the public well know that, at all events, their *purses* are lightened by its operations. But I begin to be exhilarated with hope, and to anticipate all the delightful feelings which must result from the expression of public gratitude and the reward of an ample pension for life for myself; for, surely, if an individual received a bonus for suggesting the means of saddling the public with increased taxation, he who devises the means of lessening their burdens must be doubly entitled to reward; and now to my point. I premised that the "tender system" was set on foot by way of experiment, and has been first tried on a profession whose members, I think the public will admit, have been ever ready to make great sacrifices in their behalf, and whom, I will affirm, have ever been worse paid for their services, generally speaking, than any other class of the community.

Let us now see how the principle is to be enforced, and in the end show how a diminution of our taxation can be effected and the revenue increased. In order to obtain this desirable end, the experiment must of course be carried out, and its results will instantly become apparent. Surely there can be no injustice in this? Boards of guardians are composed of all parts of the community, from the peer to the little ratepayer who moves in a humble sphere of life, and they advocate the system. It will be apparent to my readers, that I shall at once propose a general adoption of the "Tender System;" and we may fairly begin with the church, and first, with the archbishopricks; the dignity and elevated position of the office will ensure abundant competition from many worthy, zealous, and pious competitors; and small and insignificant, indeed, will be the sums tendered, compared with the present princely revenues. Then the bishopricks; oh! I have in my eye such a host of aspirants after the title of the right reverend the bishop of the diocese of ——, upon almost any terms, that the only difficulty will be to select the most worthy amongst so many excellent and faithful brethren. Then look to the archdeacons, prebends, canons, &c., and what a field is open to our view! It really makes me long for a seat in the House of Commons to open my budget, develop my plans (of course with a luminous speech), and astonish the Chancellor of the Exchequer.

Nor must we forget the crown livings, or those in the gift of colleges and corporations. From the church let us look to the law; but I must stipulate that the lord high chancellor, the attorney or solicitor general, will not prefer a bill of indictment against me for a *scandalum magnatum*, as I know their tender feelings will be much excited by the bare mention of my proposal; but it has been tried on one profession, and its effect is said to be most excellent. In the name of common justice, therefore, I call on my professional brethren and the public to urge its adoption in the case of every public officer. Let me return, then, to the lord high chancellor, the attorney and solicitor generals; and, with submission, I will venture to name the judges, and all the law-officers of the crown. I will not declare whether or not, in my opinion, they are overpaid, or how far my suggestion may improve the present order of things; but I contend for the adoption of the "tender system," in order to carry out a great principle, which is said to work well. From the law let us go to all the government offices, commencing with the premier; in short, to every appointment in the country that is strictly public, *a capite ad calcem*. We shall find it will be for the benefit of the individuals who are selected to fill their various situations in a manner creditable to themselves, and efficiently and satisfactorily as it regards the public. We have, however, an excellent model before us, which we can take from the framework of the poor-law system. First, the votes of all the ratepayers in the country can be taken in favour of a certain number of commissioners, who may be selected to form a central board, to settle all disputes and determine the laws which are to regulate the various local boards. These two can be appointed by the ratepayers in their several districts to fix the salaries and inspect the testimonials of the applicants for the various offices; can call them before them for any dereliction of duty; reprimand, suspend, or dismiss them as they think fit; and, in cases of difficulty, refer to the central board for a final decision. It may here be objected to, by some well-disposed persons, who may say it would be unfair to put up these various offices for tender annually, as the persons at present appointed to them might have filled them with great ability, and in a most trustworthy and conscientious manner; but the poor-law model before us at once removes the difficulty. They may be told that their services can be performed at a much lower rate, and, if they do not like to continue them, there are a plenty of individuals ready to accept them. Oh! I can see how much jealousy and heart-burning it will remove, and what a state of harmony will be produced when men of different professions find that they, to use a common phrase, are "rowing in the same boat;" it will give such an equilibrium to human affairs, prove such a stimulus to exertion,

when the posts of honour and emolument are thus thrown open, that a new era will occur in the history of our country. The saving will be immense; and the sum thus acquired may be allowed to accumulate for a time, and form a sinking fund to pay the interest and to liquidate a portion of our national debt. Thus, by the general adoption of a simple principle, may our nation become rich and prosperous, her people happy, and the humble suggestion receive the thanks and blessings of the present and future generations. I am, Sir, your obedient servant,

WILLIAM TOMKINS, Surgeon.

Yeovil, Somerset, Feb. 22, 1841.

THE ANATOMY ACT AT NEWCASTLE-UPON-TYNE.

THE School of Medicine and Surgery of Newcastle-upon-Tyne, we are informed, says the editor of the *Gateshead Observer*, received intimation that a death had occurred at the Head of the Side, and that the deceased had no relatives in the town, and her body was "unclaimed." Under these circumstances, the body became the property of the Medical School, by 2 and 3 William IV., cap. 75; and on Saturday afternoon, the janitor of the school, William Brown, proceeded to the room in which the body lay, and, with the assistance of four carpenters, removed it in a coffin. They were followed by several persons, natives of Ireland, who were much incensed on finding that the body was conveyed to the Medical School, and gave information to the mayor of Newcastle, John Ridley, Esq. His worship, attended by several policemen, and by a large number of other persons, chiefly Irish, proceeded to the medical school, and demanded admission, which was conceded; and the body, (then lying in warm water, previous to examination,) was removed to the house from which it had been brought. The janitor was taken into custody, but was afterwards released on bail.

The chief magistrate, we are informed, was much excited, and conducted himself in a manner not at all calculated to exalt the dignity of his high office.

An investigation into the case took place on Saturday last.

Several gentlemen of the medical profession were present, viz., Sir John Fife, Drs. Embleton, Glover, and Elliot, and Messrs. Dunning, Morrison, and Dawson, all of the Medical School; also Dr. Lynch, Mr. C. T. Carter, Mr. Bennett, and Mr. Turner. One of the magistrates, Mr. Nichol, conducting the examination.

William Brown, George Simpson, John Naylor, and John Pearson, were placed at the bar:—the first being the janitor, and the others supposed to be his assistants in removing the body. The fourth carpenter had not been found. Mr. Stoker attended as the prisoners' attorney.

Rosanna Rox stood forward to make the complaint. Her mother lived with her: her name was Sophia Quin, and her age between fifty and sixty. She had been ill about four months, and took to her bed a week before she died. On Wednesday, the 15th of December, witness applied to Mr. Heslop, the relieving officer, telling him she wanted a doctor for her mother. Mr. Heslop gave her a line to Mr. Turner, who called on Thursday afternoon, and as soon as he saw her mother, said that she was dying; and she died about nine o'clock the same night. Witness told Mr. Heslop that her mother was dead, and asked for a coffin. Mr. Heslop said he would find a coffin, and also get the burying-ground for her, if she would procure bearers—which she engaged to do. The body was to be buried at the Ballast Hills, and she invited her friends to attend the funeral on Saturday afternoon. On Saturday, no coffin having come, she called on Mr. Heslop to remind him. He told her he could not attend to her then: he was paying several poor persons, who had their marketing to make, and the living were of more consequence than the dead; but he would see about it when he was at liberty. She inquired when that would be, and he made answer that she might as well ask him when he would get up next day. She heard no more of the matter till between three and four o'clock in the afternoon, when five men came in with a coffin. The prisoner at the bar, William Brown, was one of them: she could not identify any of the rest. Brown had a pall under his arm. The other four men were about to coffin the body; but she objected, saying that she could not let her mother be coffined by men when she had women in the house. William Brown stated that they had an order from the parish to bury the body, and the clerk was waiting. The women then coffined the body, and the lid was put on. Witness shoved it off, and said that her mother should not be buried so late; she had as many men at hand as could carry the body, and the funeral should take place on Sunday. Brown said they must have the body then: they had an order from the parish, and the priest and the clerk were waiting. He did not produce any order. Witness's friends advised her to let the funeral take place on the Saturday, and the four carpenters lifted the coffin. The pall was spread over it in the passage, and she and her friends followed into the street. The men carried the coffin past St. Nicholas' church, and down the Manor-chare, to the steps leading to the Surgeons' Hall. Witness did not know then that it was the Surgeons' Hall. When the men got within

the gate, they dashed it in the face of herself and her friends, and said they had no more to do with the body. She could not say which of them it was that made use of this expression. A woman, who was standing near, took them round to a window by another road; and on looking through, they saw the coffin lying on a table. Witness's brother also saw the coffin through the window. They got a policeman, who demanded admission, but could not get in. They then went to the mayor's house, and his honour came with them to the Surgeons' Hall. He called to have the door opened, but was not admitted at first. He then asked again to be let in, and the door was opened. The first thing they saw was the shavings on the floor out of the coffin, and the lid standing against the wall. Witness's brother stooped down, and picked up the dead-clothes from under a table, which were all torn. It was very hard for her to see those things; and next she saw the old man, William Brown, open the lid of a sort of box filled with warm water. Witness looked in, and saw her poor mother's shoulders above the water, and immediately fell down in a fit, and saw no more for some time. When she came to herself, she saw her friends carrying the coffin out of the place. It was taken to witness's home, and then she saw and recognised her mother's body, and it was buried next day at the Ballast Hills. When she went to the mayor's house, she told him her mother's body had been stolen, and she wished his honour to get it back for her. A woman who remained in witness's house on Saturday afternoon, after the removal of the body by the prisoners, told her on her return that another coffin had been brought during her absence.

Examined by Mr. Stoker: Never said, to any person whatever, that the deceased had no relations.

Brown stated, in reply to the Bench, that he was sent for the body by his employers, who had the authority of the parish-officers. His employers were Sir John Fife and his colleagues. The woman Rox never said that she was related to the deceased. He had no written authority to produce.

Mr. Stoker proceeded to state the case for the defence. He trusted that he should be able to show that no breach of the law had been committed. It was known to the magistrates that there was a school of surgery established in Newcastle; and the question in this case was, whether this school had obtained the body consistently with the Anatomy Act; because the servants of the institution were protected under that statute. The first point to be settled was, who had the legal custody of the body, and the power of disposing of it. He contended that the parish-officers had the legal custody of the corpse. He would prove to them that the witness Rox, when she applied for the aid of the parish, declared that the deceased had no relatives; also, that the deceased, on her death-bed, made the same statement; that the relieving officer, who had the legal custody of the body, gave notice to the surgeons; that the medical attendant of the deceased gave the certificate required by the Act; and that the prescribed notice was given of the intention to remove the body.

The magistrates disputed the fact, that the relieving officer had the legal custody of the body. The mayor observed, that this was clearly not the case of a person dying without relatives: the deceased was living with her own daughter.

Mr. Stoker rejoined, that this alleged daughter disowned the relationship, and he had strong evidence to produce, which rendered the relationship very doubtful.

Mr. Nichol observed, that the Medical School might have removed the body under a wrong impression, and no blame might attach to that institution, but he could go no further: he could not see that the deceased was in the legal custody of the parish-officer.

After further discussion of this question, it was observed on the bench that the body having been removed within forty-eight hours from the time of death, the question of legal custody did not arise.

The magistrates then proceeded to commit the prisoners for trial at the sessions, with the exception of Pearson, who (not being identified) was discharged.

Dr. Lynch protested against the proceedings, observing that the fact of the removal of the deceased within forty-eight hours rested upon the sole testimony of Rosanna Rox; and they were prepared to show that her statements to-day on oath were materially at variance with her statements on previous days.

Mr. Morrison also observed, that if an opportunity had been afforded of giving evidence, the conduct of his worship the mayor might also have come under consideration.

The Mayor replied, that such an inquiry could not have been gone into; at least, not in this court.

Bail was then given for the appearance of the prisoners at the sessions.

The impression amongst the bystanders seemed to be, that Rosanna Rox (who was occasionally much affected) was truly the daughter of the deceased, though she might have disowned the relationship previously, in order to procure medical aid the more readily, and escape the expense of the funeral. That the Medical School, however, fully believed, and on good grounds, that the body legally belonged to that institution, there can be no doubt.

In his opening lecture of the present session of the Newcastle School of Medicine and Surgery, Sir John Fife well observed,—

"There is not a greater obstacle to the advancement of surgical science, than the popular prejudice against human dissection; and, in all countries, this superstition is strongest in the least educated of the people, although they are, of all others, the most deeply interested in obtaining the assistance of the greatest surgical skill. Any man of good address and plausible manners, however superficial his scientific acquirements, may minister to the whims of a nervous lady, or the megrims of a hypochondriac gentleman; but the labouring man needs other assistance, amidst the terrific accidents to which he is exposed. It is not the man of fortune whose leg is crushed under a cart-wheel, whose limbs are lacerated by machinery, or whose skull is fractured in a mine or a quarry: these misfortunes make part of the hard lot of the poor man, whose situation is such that his only chance of future usefulness, or life itself, depends upon that moral courage in his surgeon which the conscious possession of scientific acquirement inspires.

"The founder of the *Northern Liberator*, the late A. H. Beaumont, acted an honest part upon this question. He would not mislead the working-classes to serve a purpose, but declared that they had been deceived as to the provisions of Warburton's Anatomy Bill: he declared that bill to be wise and humane.

"In one instance, a man of education, who ought to have known better, told me that we might learn anatomy by maps! True, we might learn anatomy as we learn geography; but how could the student, by such means, acquire that fine sense of touch by which we distinguish and recognise deep-seated and unseen structures? How could the surgeon, by such practice as with maps, ever acquire that rapid and accurate use of his knife, through which so much suffering is avoided? It is only by the early and extensive practice of dissection!

"Many enlightened and humane individuals have bequeathed their remains to the dissecting-room; and this noble example has been shown in our own country, I believe, by H. R. H. the Duke of Sussex; and which of us present would shrink from the same devotion? For my own part, I am willing to give this proof of my sincerity." From the *Gateshead Chronicle*, Jan. 2, 1841.

NAVAL ASSISTANT-SURGEONS.

To the Editor of THE LANCET.

SIR:—Now that the naval and military commission have finished their labours, and the good effects of their recommendation are felt by all classes of officers, I would beg to make a few remarks upon the existing condition of the naval assistants, as a criterion to judge by, for those whose future prospects are centred in the naval service. Since the termination of the commission he receives increase of pay, and all his actual servitude now reckons for future increase of pay and retirement; and no officer can now complain of insufficiency of pay. Still the discomforts of the assistant are very glaring; instead of receiving the respect and rank due to him from his profession and standing as a gentleman, he gets appointed to a ship, and is ushered into his new mess-place, amongst a number of gentlemen, varying in age from the volunteer of fourteen to the old mate of forty; where, from morning till night, nothing but jarring and continued noise is to be heard; this, he must know, is his study, for prosecuting the studies that he may have so auspiciously commenced. He turns into his hammock at night, jammed in no agreeable manner by the surrounding hammocks; he rises in the morning, and dresses amongst the ship's company, on the top of his chest; he may have a small dispensary, and in some ships a sick bay; but these luxuries he enjoys from casualty, not from right; he must walk the sea-side of the quarterdeck along with his messmates, the middies; he goes on shore, and does not receive the usual salutes of an officer; uniform plain as it possibly can be, no epaulette to distinguish him. All these discomforts are to be borne for a space averaging from ten to fourteen years, this being the average period for promotion. In fact, instead of having a cabin for comfort and study, which might be looked, in a service point of view, as adding to his efficiency; in messing in the ward-room, where the society of men would be enjoyed instead of boys; in having regular rank affixed to him, with corresponding uniform, instead of at present a supposed rank, when no printed instructions upholds it: all these comforts our brother-officers in the army enjoy. No wonder, then, that the physician-general of the navy should find a want of efficient candidates for entering the service; and the late recommendations, by the commission, will be frustrated in removing it. No wonder that young medical gentlemen should prefer services where proper respect is paid to them. I have the honour to be, Sir,

A NAVAL ASSISTANT-SURGEON.

*** This is one of several letters, on the same subject, which have reached us from naval assistant-surgeons. We should prefer to receive suggestions for the correction of the inconveniences to mere complaints. Our correspondent seems to desire a separate cabin, with all the luxuries of land service;—that appears to us to be wholly impossible in a ship of war. He desires to mess in the

ward-room, and throw down all distinction between the surgeon and his assistant; that would be unjust towards the former. The ward-room, the weather-side of the deck, and the epaulette, are the rewards of service, the badges of merit; the humble privileges of the senior and distinguished officer over the junior and untried man. It has been well said, that where the disposition exists the means will soon be found. If the assistant-surgeon *will* read, *will* study, *will* insist upon distinguishing himself by excellent reports, ingenious and practical views, and evident ability, his hammock will soon turn into a cot; his riotous mess companions into senior officers; and his noisy home in the gun-room into a quiet cabin. We know the physician-general to be an officer of too much judgment and liberality to pass over those who evidently show themselves to be rising men,—but they must show it; "Palmam qui meruit ferat," is a naval motto; and these are not the days when the sleeper can expect to reap the rewards of labour and industry. We cannot close these remarks, however, without expressing a sincere regret, that the science of medicine should have received so little from the hands of naval medical officers, generally men whose opportunities are far from small, and whose time is so little employed in actual duty.

DRUGGISTS.—CHARGES FOR MEDICAL ATTENDANCE.

To the Editor of THE LANCET.

SIR:—In THE LANCET, of the 19th Dec., ult., there is a letter signed H. S., pointing out the relative position which ought to subsist between druggists and the general practitioner, in the sentiments of which I most readily concur; but I very much doubt the practicability of the plan as a whole, because, for very abundant reasons (too palpable to render a recital of them necessary), I conceive it to be impossible, at least in this country, for the dispensing part to be entirely abandoned by the general practitioner.

With regard to the remunerative part of the profession, I certainly consider the present general mode of compensation, as depending upon the *quantum of medicines supplied*, to be highly objectionable, as it reduces a learned profession to the level of a trade; and is, besides, oftentimes prejudicial to the well-doing of the patient. After no inconsiderable reflection on this subject, during an experience of more than forty years in the profession, the plan which always appeared to me the least liable to objection is that of a reasonable charge *per visit*, conjoined with a *fixed* and *moderate allowance* for *medicines*; otherwise, particularly in chronic cases, where daily attendance is not required, but in which a regular supply of medicines is necessary,—how, I would ask, is the general practitioner to be remunerated? The privilege of prescribing, as *usurped* by the druggist, is, without doubt, a source of much injury to the regular practitioner; but, in relation to the *public*, the mischief is quite *appalling*, and *the extent incalculable*. Now, in obviating an evil of such magnitude, there are certain advantages which might be given over to the druggist in the light of *quid pro quo*, e. g. the preparation of prescriptions, under certain limitations, sale of drugs, &c.

Not having seen a draft of the Medical Reform Bill, intended for the consideration of Parliament, and being unacquainted with the provisions of it, I have been induced to submit the few preceding remarks; and, trusting they may not be considered undeserving a place in your excellent and impartial Journal, I remain, Sir, with great respect, your humble servant,

REFORMATOR.

Jan. 28, 1841.

BOOKS RECEIVED.

A Few Hints Addressed to Medical Students, about to Visit the Parisian Hospitals. By a Physician. London: Churchill. 1841. 12mo. pp. 52.

The Anatomy of the Arteries of the Human Body, with its Applications to Pathology and Operative Surgery, in Lithographic Drawings, with Practical Commentaries. By Richard Quain, Professor of Anatomy in University College, and Surgeon to the University College Hospital. The Delineations by Joseph Maclise, Esq., Surgeon. Parts I. to V. London: Taylor and Walton. Super-royal folio and 8vo. letter-press.

TO CORRESPONDENTS.

Mr. Levison's communication shall receive an early insertion in our Journal.

Communications have been received from *Mr. Smethurst; W. H. R.; C.; Mr. Thompson*, of Stalybridge; *Mr. Raynall; Mr. Millard; Mr. Williams; A Bartholomew Student; Dr. Von Horn; Mr. Smith.*

"*A Medical Assistant*" suggests the establishment of a Medical Friendly Society for medical assistants. Such an institution already exists for the members of the profession, in the Benevolent Fund of the British Medical Association.

We regret that *Mr. Gurney's* name, in his communication on the Treatment of Burns and Scalds, should have been mispelt, as we

find it to have been by his subsequent letter. In the manuscript the signature was distinctly written "Gaozey" in two places; and it was not without some consultation that we decided to print it as it stood. The remarks of "Medicus," as to the "oxymel æruginis," require no comment.

The newspaper and two letters from the county of Chester, replying to our questions, have been received. We thank our correspondents for their attention. We have only sufficient time, before going to press, to glance hastily over the documents. The freeholders appear to have gained a valuable prize.

The communication of "*A Medical Superintendent*" shall be published in an early number of our Journal.

A correspondent, signing himself with a cypher, which is unreadable, inquires the "Expenses of the course of study required by the University of Edinburgh for the degree of M.D." The period of study is four years; but if the student have been at any other university, that term will be received as part of the four years. For a M.A., the period of study is three years. The expenses of lectures and hospital are about £70.

The medical practice of the St. Marylebone Infirmary is recognised by Sir James Macgregor for the army board, and, we believe, by Sir William Burnett for the naval department. It contains a larger number of beds than any of the metropolitan hospitals, and is decidedly the best school of clinical medicine in London.

Quiensafe. Please to consult a medical practitioner personally, instead of a journalist anonymously.

T. W. E. is "qualified" for the office. We have had the pleasure of receiving a copy of the excellent resolutions passed at the meeting of medical practitioners at Nottingham, on the 3rd instant: Dr. Hitchinson in the chair. We hope that a similar copy has been forwarded to every member of the Houses both of Commons and Lords.

The copies of the resolutions and petition to Parliament, adopted at the meeting of the Gloucestershire Medical and Surgical Association, on the 16th ult., the latter praying for the adoption of the recommendations of the Poor-law Committee, relating to the medical relief of the poor, and urging other ameliorating clauses in the Poor-law Bill, have also reached us.

A Subscriber. The handbill of Mr. J. D. Hepworth is no disgrace to the faculty of quacks, whatever it may be to a member of the medical profession, and a "Surgeon for many years to the Leeds General Eye and Ear Infirmary."

A Constant Reader (Colnebrook). Lord Tenterden, some years ago, decided the first question in the affirmative; both may be charged. Our reply to the second question is, Yes, if the witness have been summoned according to the form directed in the Medical Witnesses' Act, but not otherwise.

C. R. The production of the account-books would be the best proof. If they are out of existence, then the written affidavits, or other sufficient and reputable proof, would be received probably.

A. B. Not unless he practises in the case as an apothecary, and in that capacity treats any disease, attending it as a "medical," and not a "surgical" case.

It is unnecessary to publish the note of Mr. Clay. The Bill in question is not likely to become a statute of the land; and whatever penal clause in any such Bill becomes law, will certainly reach female offenders as well as male.

One of our Oldest Subscribers. Not, according to law, within seven miles. It is doubtful if any new law would regard the title named as, of itself, an indication of a legal qualification to practise medicine in England.

Myton. Such advertisements, we are sorry to say, are too numerous for notice individually.

Mr. J. Belton. Answer 1. He is liable. 2. We believe not, or they would have had a verdict in their favour, excepting under failure of proof, or on a quibble.

The question raised in the letter of *A Provincial Surgeon*, would always be speedily settled by the refusal of the medical practitioner to reply to inquiries of the assurance-office, unless either the office, or the applicant to the office, offers to pay for the answers. Our own opinion is, that the duty of remuneration does not rest with the office, but with the party assuring, notwithstanding the circumstance that the questions come from the office. The surgeon need not reply to them without payment. Where, then, is the hardship that is so often expressed on these occasions? The assurer asks a favour, and as the officer will grant it only on certain conditions, the expense of fulfilling those conditions should be defrayed by applicant, who would pretty soon pay the surgeon's fee, if the replies could not otherwise be obtained.

Compositions of the class, forwarded by *A Constant Reader* (*T. L.*), never find a place in our pages.

The letters referred to by the writer, who signs his note *B. C'est une Affaire, &c.*, were, both of them, in type when that note reached us; the publication of the letters having been unavoidably omitted from the previous number of our Journal, with the intention of inserting them last week. But the unwarrantable comments and surmises, which he has taken the liberty to express, in relation to the delay—not the first impertinences of the same kind—at once set at rest the question of their appearance, and we now take the writer at his word, and *fiat* let it be.

Showing the No. of Deaths from all Causes, Registered in the 5 Weeks, ending Saturday, Feb. 27, 1841.

Causes of Death.	January.		February.			Weekly Av. 1838-40, (corrected.)
	24 to 30	31 to F. 6	7 to 13	14 to 20	21 to 27	
Small-Pox	64	59	54	45	36	36
Measles	15	15	13	6	8	24
Scarlatina	11	10	12	13	11	38
Hooping-Cough	49	57	56	49	67	28
Croup	8	3	12	4	4	7
Thrush	8	2	6	3	2	5
Diarrhœa	7	3	3	2	9	8
Dysentery	1	2	1	1	3	2
Cholera	....	....	....	....	....	1
Influenza	2	1	2	4	12	1
Typhus	26	21	26	22	30	46
Erysipelas	9	4	5	10	8	7
Syphilis	....	....	....	1	....	1
Hydrophobia	....	....	....	....	....	.1
TOTAL	200	179	190	160	190	294
Cephalitis	6	12	12	19	19	11
Hydrocephalus	26	34	44	27	45	34
Apoplexy	19	15	18	14	18	18
Paralysis	29	11	27	24	21	15
Convulsions	69	41	61	58	38	60
Epilepsy	4	4	2	6	2	4
Insanity	2	1	1	2	1	1
Delirium Tremens	....	2	....	....	2	1
Dis. of Brain, &c.	18	8	7	12	15	7
TOTAL	173	128	172	162	181	151
Quinsey	2	2	3	....	1	1
Bronchitis	28	22	24	23	23	9
Pleurisy	5	....	4	2	1	2
Pneumonia	110	98	96	85	104	72
Hydrothorax	3	3	6	8	10	5
Asthma	55	42	70	57	37	24
Consumption	125	131	154	147	122	141
Dis. of Lungs, &c.	22	18	18	32	16	12
TOTAL	350	316	375	354	314	266
Pericarditis	2	....	1	1	1	.6
Aneurism	1	2	1	1	2	.6
Dis. of Heart, &c.	19	17	18	21	31	17
TOTAL	22	19	20	23	34	18
Teething	19	15	15	17	18	17
Gastri—Enteritis	17	13	15	20	14	18
Peritonitis	2	1	2	1	....	2
Tabes Mesenterica	7	4	4	7	6	4
Ascites	1	....	1	....	1	1
Ulceration	3	1	1	....	1	1
Hernia	2	2	8	....	2	2
Colic or Ileus	5	3	1	8	3	1
Dis. of Stomach	8	7	5	7	7	4
Hepatitis	3	4	....	2	2	1
Jaundice	3	3	3	5	....	2
Dis. of Liver, &c.	7	9	9	11	5	7
TOTAL	77	64	64	78	59	60
Nephritis	2	....	....	....	2	.4
Diabetes	....	1	2	....	1	.3
Stone	....	....	....	....	....	.5
Stricture	1	....	....	....	....	.4
Dis. Kidneys, &c.	3	1	4	2	3	2.4
TOTAL	6	2	6	2	6	4

Causes of Death.	January.		February.			Weekly Av. 1838-40, (corrected.)
	24 to 30	31 to F. 6	7 to 13	14 to 20	21 to 27	
Childbed	18	8	12	11	9	7
Ovarian Dropsy	1	....	1	1	....	.2
Dis. of Uterus, &c.	3	5	4	3	2	2
TOTAL	22	13	17	15	11	9
Rheumatism	6	2	5	3	1	3
Dis. of Joints, &c.	2	2	1	6	7	3
TOTAL	8	4	6	9	8	6
Ulcer	....	1	....	....	1	.4
Fistula	....	....	....	....	....	.4
Dis. of Skin, &c.	....	....	....	....	1	.3
TOTAL	....	1	....	....	2	1
Inflammation	4	6	4	6	10	12
Hæmorrhage	5	1	4	3	1	3
Dropsy	31	25	51	41	44	34
Abscess	4	3	3	5	5	4
Mortification	4	7	2	3	13	5
Scrofula	2	....	1	....	2	2
Carcinoma	7	9	5	9	6	7
Tumour	....	1	3	2	3	2
Gout	1	2	1	4	3	1
Atrophy	9	5	15	7	3	4
Debility	28	25	13	26	27	15
Malformations	1	1	....	2	....	1
Sudden Deaths	18	18	31	17	19	13
TOTAL	114	103	134	125	136	103
Old Age	103	72	120	92	78	71
Intemperance	....	....	....	....	....	.6
Privation	2	1	2	1	2	.4
Violent Deaths	28	20	25	31	18	24
TOTAL	30	21	28	32	20	25
Causes not Spec.	2	4	5	4	1	8
Deaths, all Causes	1107	926	1137	1056	1040	926
No. of Week	4	5	6	7	8	....

1840—41.	Ages.		
	0 to 15	15 to 60	60 & upwards
Jan. 24th to 30th	475	360	270
„ 31st to Feb. 6th	444	293	180
Feb. 7th to 13th	469	394	273
„ 14th to 20th	415	372	267
„ 21st to 27th	455	349	235
Weekly Average, 1838—40	438	314	171

TEMPERATURE	High.	Low.	D. Mean.
Week ending Jan. 30	53°	31°	46°
„ Feb. 6	44	22	30
„ 13	49	24	32
„ 20	51	40	46
„ 27	52	34	42

	Estimated Pop. 1840.	Jan. 24 to 30.	Jan. 31 to Feb. 6.	Feb. 7 to 13.	Feb. 14 to 20.	Feb. 21 to 27.	Weekly Av 1838-40
West Districts	308,921	144	155	162	164	143	139
North Districts	414,458	175	178	197	177	183	163
Central Districts	369,772	237	253	234	234	234	190
East Districts	411,634	227	286	247	243	235	211
South Districts	450,285	274	190	278	238	245	223
	1,955,000	1107	926	1137	1056	1040	926